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<220>
 <221> misc feature
 <222> (1845)
 <223> n equals a,t,g, or c
 <400> 134
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 cgcgcgcagg ccggcctctg tgtgtgcgcc acagcgagcc ggtgtgcggc agcgacgcca 180
 acacctacge caacctgtge cagetgegeg eegecageeg eegeteegag aggetgeace 240
 ggccgccggt catcgtcctg cagcgcggag cctgcggcca agggcaggaa gatcccaaca 300
 gtttgcgcca taaatataac tttatcgcgg acgtggtgga gaagatcgcc cctgccgtgg 360
 ttcatatcga attgtttcgc aagcttccgt tttctaaacg agaggtgccg gtggctagtg 420
ggtctgggtt tattgtgtcg gaagatggac tgatcgtgac aaatgcccac gtggtgacca 480
acaagcaccg ggtcaaagtt gagctgaaga acggtgccac ttacgaagcc aaaatcaagg 540
atgtggatga gaaagcagac atcgcactca tcaaaattga ccaccagggc aagctgcctg 600
tectgetget tggccgetec teagagetge ggccgggaga gttcgtggte gccateggaa 660
gcccgttttc ccttcaaaac acagtcacca ccgggatcgt gagcaccacc cagcgaggcg 720
gcaaagaget ggggeteege aacteagaca tggactacat ccagacegae gccatcatea 780
actatggaaa ctcgggaggc ccgttagtaa acctggacgg tgaagtgatt ggaattaaca 840
ctttgaaagt gacagetgga atcteetttg caateceate tgataagatt aaaaagttee 900
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ttagtccaac taatgcagtc gatacaatgc gtagatagaa gaagccccac gggagccagg 1620
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                                                                   1855
<210> 135
<211> 917
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (913)
<223> n equals a,t,g, or c
ggttttttgc gcgtgcatat ggcggtggcg ggtgggggga aggggggagat cctgctgcac 60
```

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 ctgcagageg aegeageett eggtgeagte gteaetegeg tetggetace ageteeege 180
 tgccctgagc teggeggget ggcattegge eeggggaaaa geggageagg tetgegagge 240
 taagtgtete egeggegeae etegeggega gaateeggag gagaaggaga etgeaaggat 300
 aggcccagga aaacgaagag atggagcagc ctatgcagaa tggagaggaa gaccgccctt 360
 tgggaggagg tgaaggccac cagcctgcag gaaatcgacg gggacaggct cgccgacttg 420
 cccctaattt tcgatgggcc atacccaata ggcagatcaa tgatgggatg ggtggagatg 480
 gagatgatat ggaaatattc atggaggaga tgagagaaat cagaagaaaa cttagggagc 540
 tgcagttgag gaattgtctg cgtatcctta tgggggagct ctctaatcac catgaccatc 600
 atgatgaatt ttgccttatg ccttgactcc tgccatttat catgagatta atactgtgat 660
 tecegetgtt ttettttee ttgcatttte etaatatgee tttactgate egtttgetgt 720
 gaaccctatg ttatttccat gtgtcaagtg ggtcttgtgt tgccagcttc tatttgaaga 780
 ttgcctttgc actcagtgta agtttctgtc agcagtagtt tcacccattt gcatggaaaa 840
 atttaaagct aataaagcaa tttaaaaagc aaaaaaaaa aaaaaaaaa aaaaaamamg 900
 gggggcccg gwnccca
 <210> 136
 <211> 1271
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc feature
<222> (1236)
 <223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1255)
<223> n equals a,t,g, or c
<400> 136
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atccgcgggc tggcccaykc catccgcctg ctcctggaat acacagactc aagctaygag 180
gaaaagaagt acacgatggg ggacgctcct gattatgaca gaagccagtg gctgaatgaa 240
aaattcaagc tgggcctgga ctttcccaat ctgccctact tgattgatgg grctcacaag 300
atcacccaga gcaacgccat cctgcggtac attgcccgca agcacaacct gtgcggggaa 360
tcagaaaagg agcagattcg cgaagacatt ttggagaacc agtttatgga cagccgtatg 420
cagetggeca aactetgeta tgacceagat tttgagaaac tgaaaccaga atacetgeag 480
gcactccctg aaatgctgaa gctctactca cagtttctgg ggaagcagcc atggtttctt 540
ggggacaaga tcacctttgt ggatttcatc gcttatgatg tccttgagag aaaccaagta 600
tttgagccca gctgcctgga tgccttccca aacctgaagg acttcatctc ccgatttgag 660
ggcttggaga agatctctgc ctacatgaag tccagccgct tcctcccaag acctgtgttc 720
acaaagatgg ctgtctgggg caacaagtag ggccttgaag gccaggaggt gggagtgagg 780
ageceatact cageetgetg eccaggetgt geagegeage tggaetetge ateccageae 840
ctgcctcctc gttcctttct cctgtttatt cccatcttta ctcccaagac ttcattgtcc 900
ctcttcactc cccctaaacc cctgtcccat gcaggccctt tgaagcctca gctacccact 960
atcettegtg aacateceet eccateatta ecetteeetg cactaaagee ageetgaeet 1020
teetteetgt tagtggttgt gtetgettta aargeetgee tggeeeeteg eetgtggage 1080
tcagccccga gctgtccccg tgttgcatga aggagcagca ttgactggtt tacaggccct 1140
```

```
getectgeag catggteect geettaggee tacetgatgg aagtaaagee teaaceacaa 1200
 aaaaaaaaaa aaaaaatttg ggggggggcc cgttanccca tttggccctt taggnggggg 1260
 ggttttaaat t
                                                                    1271
 <210> 137
 <211> 2017
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc feature
 <222> (295)
 <223> n equals a,t,g, or c
 <400> 137
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 ttgaagtgga tgacaccttg aagacccaga tgaattettt tetgetgtee actgecagee 120
 aacaggagat tgctactcta gacaacaaga caatgactga tgtggtgggt aaccararga 180
 rgagegeega getgagttet aettecagee etgggkeagg aggetgtgtg cerataette 240
 tactccaagg tgcagcagag acgacaagaa ttagagcaag ccctgggaat ccggnataca 300
tagggcctct cccacagccc tgattcgact gcaccaattc ttgawttggg ccctgtgctg 360
cctgcctcat agtatctgcc ttggtcttgc ttggggcgtt ccaggggatg ctgttggttc 420
aaggacaaca ccagaatgaa gagggtctca caagacacct gttatcctct tctttcaccc 480
tatetettee cacececage tteeetttge eccacaaagt teecatgtge etgtaceete 540
ccctggtcta cataggacct ctagatagtg ttagagagag aacatgtagt ggtaatgagt 600
gcttggaatg gattgggcct caggccaggt ggtcttcaag gggaccagct aactgatcct 660
gcccttcaga gacccaggag ttgggagctt tcgctccttc tccaagactc aggcctgtgg 720
gcactctata agctagttga tettggetet eetgataaca gaatecaatt teetteette 780
cctccacagg tttggaacaa actctccctt cacttgttgc cctgtagcac tacagaaacc 840
ctggttettg ggetecaetg geceeagggt eagteceeag ecetetgggt tgreetgetg 900
tcagtgcttc tytcactcct tagttggggt ccacatcagt attggagttt tgttctttat 960
tgetecetee cagacactee etgtggetge eetttgtgat teeetcagat etgeectaat 1020
cccgggcatt tgggtggggg aatcttgcct ttccctttca gagccccagg gatctcatct 1080
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cattcactca ctccaccctg cctctgcatc ccttaatgga gaaacgggcc taaaaccaaa 1200
cgggtaaaaa gccctgggcc atccctgtct tcctgtccct tgtctgccca gttgacacct 1260
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ctcaaagctt cagacccctc aggtagcagc aggaccttgt gatcttggcc ccttggatct 1440
gagatggttt ttgcatcttt ccaggagagc ctcacattct tcttccaggt tgtatcaccc 1500
ccgagttagc atatcccagg ctcgcagact caacacagca agggtgggag acagctgggc 1560
acaaaggggg aatteegtte ageatggget etaaaceeac agaactgaca aageeeetge 1620
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ccatgagaag gaagctcagt acttcccaca gtgtccctgt tgataactgt ttttattaac 1860 .
tgaattgttt ttttcatgga ccaaactttt ttttgtactg tccccttatt gatgttaccc 1920
agttttaata aaagaatett etgaaggatg ggteeteeta eetaetgtga gagagetett 1980
ccctgagctc ttcttccttc aataccatta aaaaaaa
                                                                  2017
```

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<211> 937
<212> DNA
<213> Homo sapiens
<400> 138
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tacagtgagg ctacagtgac tgaggggaga atccctcctg ttcactctcc caaccctgct 180
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aagcaaaatg gggagggga ggaagcagtg actttttt ggtaattatg cgctttttt 360
taatttttag aatttgtctt tttactgtgg gtgggctgtt gatatttcat caagataagc 420
atttettee tgagtteagg tgaetgagga agagceacaa aacaaaacac aacaaaacca 480
aaccacagaa tcatctttaa cccaactttt tatacgatgc cccagttccc cataactttg 540
cacacaaget tetgtgttca gttgaattgt aactgetttt tgtatttgga gagagtgaet 600
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ttaagaaatg tgtttgccct gttttgtttg gtttcgtttt gttttctttg aataaatgac 900 .
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<210> 139
<211> 2759
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (171)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1654)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2743)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2744)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2746)
<223> n equals a,t,g, or c
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<400> 139 gctagtctca caggaaccca ggcgttgccc ccactcttct ccctcggcta ccaccagagc 60 cgttggaact accgggacga ggctgatgtg ctggaagtgg atcagggctt tgatgatcac 120 aacctgccct gtgatgtcat ctggctagac attgaacatg ctgatggcaa ncggtatttc 180 acctgggacc ccagtcgctt ccctcagccc ygcaccatgc ttgascgctt ggcttctaag 240 aggesraage tggtggceat cgtagaeeee cacateaagg tggaeteegg etacegagtt 300 cacgaggage tgeggaacet ggggetgtat gtwaaaacee gggatggete tractatrag 360 ggctggtgct ggccaggctc agctggttac cctgacttca ctaatcccac gatgagggcc 420 tggtgggcta acatgttcag ctatgacaat tatgagggct cagctcccaa cctctttgtc 480 tggaatgaca tgaacgaacc atctgtgttc aatggtcctg aggtcaccat gctcaaggat 540 gcccagcatt atgggggctg ggagcaccgg gatgtgcata acatctatgg cctttatgtg 600 cacatggcga ctgctgatgg gctgagacag cgctctgggg gcatggaacg cccctttgtc 660 ctggccaggg ccttcttcgc tggctcccag cgctttggag ccgtgtggac aggggacaac 720 actgccgagt gggaccattt gaagatetet attectatgt gtctcagett ggggctggtg 780 ggactttcct tctgtggggc ggatgtgggt ggcttcttca aaaacccaga gccagagctg 840 cttgtgcgct ggtaccagat gggtgcttac cagccattct tccgggcaca tgcccacttg 900 gacactgggc gacgagagcc atggctgtta ccatctcagc acaatgatat aatccgagat 960 gccttgggcc agcgatattc tttgctgccc ttctggtaca ccctcttata tcaggcccat 1020 cgggaaggca ttcctgtcat gaggcccctg tgggtgcagt accctcagga tgtgactacc 1080 ttcaatatag atgatcagta cttgcttggg gatgcgttgc tggttcaccc tgtatcagac 1140 tctggagccc atggtgtcca ggtctatctg cctggccaag gggaggtgtg gtatgacatt 1200 caaagctacc agaagcatca tggtccccag accctgtacc tgcctgtaac tctaagcagt 1260 atccctgtgt tccagcgtgg agggacaatc gtgcctcgat ggatgcgagt gcggcggtct 1320 tcagaatgta tgaaggatga ccccatcact ctctttgttg cacttagccc tcagggtaca 1380 gctcaaggag agctctttct ggatgatggg cacacgttca actatcagac tcgccaagag 1440 ttcctgctgc gtcgattctc attctctggc aacacccttg tctccagctc agcagaccct 1500 gaaggacact ttgagacacc aatctggatt gagcgggtgg tgataatagg ggctggaaag 1560 ccagcagctg tggtactcca gacaaaagga tctccagaaa gccgcctgtc cttccagcat 1620 gaccctgaga cctctgtgtt ggtcctgcgc aagnctggca tcaatgtggc atctgattgg 1680 agtattcacc tgcgataacc caagggatgt tctgggttag ggggagggaa ggggagcatt 1740 agtgctgaga gatattettt ettetgeett ggagttegge eeteeceaga etteaettat 1800 gctagtctaa gacccagatt ctgccaacat ttgggcagga tgagagggct gaccctgggc 1860 tccaaattcc tettgtgate teetcaeete teecaeteea ttgataeeaa etettteeet 1920 tcattccccc aacatcctgt tgctctaact ggagcacatt cacttacgaa caccaggaaa 1980 ccacagggcc cttgtcgccc cttctctttc ccttatttag gagccctgaa ctcccccaga 2040 gtctatccat tcatgcctct tgtatgttga tgccacttct tggaagaaga tgagggcaat 2100 gagttagggc tccttttccc cttccctccc accagattgc tctcccacct ttcatttctt 2160 cctccaggct ttactcccct ttttatgccc caccgataca ctgggaccac cccttacccc 2220 ggacaggatg aatggatcaa aggagtgagg ttgctaaaga acatcctttt ccctctcatt 2280 ctaccctttt cctctccccg attccttgta gagctgctgc aattcttaga ggggcagttc 2340 tacctcctct gtccctcggc agaaagacgt ttccacacct cttaggggat gcgcattaaa 2400 cttcttttgc ccccttcttg tcccctttga ggggcactta agatggagaa atcagttgtg 2460 gtttcagtga atcatggtca cctgtattta ttgctaggag aagcctgagg gtggggggag 2520 atgatcatgt gtgctcgggg ttggctggaa gccctgggtg gggggttggg ggaggactaa 2580 tggggagtcg gggaatattt gtgggtattt tttttacttc ctcttggttc ccagctgtga 2640 cacgttttga tcaaaggaga aacaataaag ggataaacca taaaaaaaaa aaaaaaaaa 2700 

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<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (317)
<223> n equals a,t,g, or c
<400> 140
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tecteeggga teccetgeet ggtgeecaca etgeetegea agegetegee acceteacgt 1140
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                                                                  1241
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa g
<210> 141
<211> 3405
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1569)
<223> n equals a,t,g, or c
<400> 141
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tttgtcacgt gtgtccggca gccagaattc cgagccgtgc taggagaagt ggttctatac 120
traggagera ggeetetete teateagera ggeeregagg eteetgeeet eccaaagara 180
gctgctcagc tcaagaaaga ggcaaagaaa cgggagaagc tagagaaatt ccaacagaag 240
cagaagatcc aacagcagca gccacctyca ggggagaaga aaccaaaacc agagaagagg 300
gagaaacggg rtyctggggt cattamctwt gacytcccaa ccccamccgg ggaaaagaaa 360
gatgtcagtg gccccatgcc cgactcctac agccctcggt atgtggaggc tgcctggtac 420
ccttggtggg agcagcaggg cttcttcaag ccagagtatg ggcgtcctaa tgtgtcagca 480
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<213> Homo sapiens
<220>
<221> misc feature
<222> (285)
<223> n equals a,t,g, or c
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<211> 1066
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (1061)
<223> n equals a,t,g, or c
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<210> 152
<211> 1649
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1543)
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<223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (1579)
 <223> n equals a,t,g, or c
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cgggcctcgc tgcaaatttg gaccgggcca aggctggact gctggagcgt gtgaaggagc 300
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<211> 660
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
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 ctgagatgga tacctctacc tgacatggcc tgaagatgca gggcagagga attgcccatg 540
 gacagtgacg caaggactag gctgggaggg agcgtgccaa ccccttttgc ctctgggttt 600
 ggggagcgga gggcctcttc ttggtgccct gccccaata aaggaactgg acaaagagaa 660
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 <211> 605
 <212> DNA
 <213> Homo sapiens
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 <223> n equals a,t,g, or c
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 <221> misc feature
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<222> (587)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (596)
<223> n equals a,t,g, or c
<400> 154
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tgccggtgga ggcgggagcg gaaggcgagg aggacggctt cggggaagca gaatacgctg 180
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tecageagea geteggggag geceecagtg atgecagece etaggeteca agageececa 360
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 <210> 155
 <211> 695
 <212> DNA
<213> Homo sapiens
 <220>
 <221> misc feature
<222> (173)
<223> n equals a,t,g, or c
 <220>
<221> misc feature
<222> (499)
<223> n equals a,t,g, or c
<400> 155
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<211> 780
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (289)
<223> n equals a,t,g, or c
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cgcggcgtgc ggcaggccca ggcagaagac gcgctccgtg tggacgtgga ccagctggag 240
aaggtgette geagetgete tggaetteta gggateteag eegtggekna ggeeaeeece 300
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<211> 1127
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (1113)
<223> n equals a,t,g, or c
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<211> 1282
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<221> misc feature
<222> (120)
<223> n equals a,t,g, or c
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 <222> (1279)
<223> n equals a,t,g, or c
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<211> 1505

<212> DNA

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<213> Homo sapiens
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 aaggetgtgt cattgtgtea getgeeaaag eecaactget geagtgeeag caccateeag 240
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<211> 736
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (718)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (723)
<223> n equals a,t,g, or c
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PCT/US00/05881

WO 00/55173

122

tecggetegg etegegggga etgtgeaega ggttggegae gegeeeegee gggeeeeaga 120 tcaggccgca gagatcggga gccgcgggag cactaaggcg caagggccac agcagcagcc 180 gggctcagag ggtcccagct atgccaaaaa agttgcgctc tggcttgctg ggctgcttgg 240 agctggtggg actgtgagcg tcgtctatat ctttggaaac aacccggtgg acgaaaatgg 300 tgccaagatt cctgatgagt tcgacaatga tccaattctg gtacagcagt tgcgccggac 360 atacaaatat ttcaaagatt atagacagat gatcatcgag cccaccagcc cttgccttct 420 cccagaccct ctgcaggaac cgtactacca gccaccctac acgctcgttt tggagctcac 480

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<220>

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cctgttacct cttggatatt ggctgtggtt ctgggctgag tggagattat ctctcggatg 240
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gagacactga gggagacctg cttctggggg acatgggcca gggcatcccc ttcaaaccag 360
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<213> Homo sapiens
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<221> misc feature
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teggageegt gagegeteae cateceetet gegsggeaae gtggteecaa geceaetgee 180
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catcagetee taggagatgg tggaageace cettgteetg tgettgtggg agaetttgeg 540
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gggtgttccc ggccatcagc acagcctatg accattgcaa caacctctca ccatctgaag 720
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<222> (394)
<223> n equals a,t,g, or c
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ttcacccacc agagtgatgt gtggagttat ggtgtgactg tktgggagct gatgactttt 240
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gaggcagnaa rccaatgggt cactgttgcc cctaaagggg ggtttttgaa ccaaggggga 1020
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<210> 167
<211> 657
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (564)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (597)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (602)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (635)
<223> n equals a,t,g, or c
<400> 167
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<212> DNA
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<211> 774
<212> DNA
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<223> n equals a,t,g, or c
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<221> misc feature
<222> (733)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (754)
<223> n equals a,t,g, or c
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gagatgtgag ggcctttgtc tcatcacatc cgagcacagc tcagcaagat gctcttagct 120
agraaacaga ttttatgtgt taatgttaaa aattttgcag ttatttatct tgtggatatt 180
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acagaagtgo ctgacttcaa caaaatgtat gagttatacg atccatgtac tgtcatgttt 240
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<213> Homo sapiens
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aagaaggget tetecatege caaggaggge gtggtgggtg eggtggaaaa gaccaagcag 180
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<212> DNA
<213> Homo sapiens
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<sup>&</sup>lt;211> 243

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

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<222> (370)
<223> n equals a,t,g, or c
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<222> (567)
<223> n equals a,t,g, or c
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<212> DNA
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<222> (8)

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<223> n equals a,t,g, or c
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<221> misc feature
<222> (559)
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<221> misc feature
<222> (590)
<223> n equals a,t,g, or c
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<211> 691
<212> DNA
<213> Homo sapiens
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<222> (618)
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<221> misc feature
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<223> n equals a,t,g, or c
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<222> (672)
<223> n equals a,t,g, or c
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<211> 557
<212> DNA
<213> Homo sapiens
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<222> (451)
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557

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<221> misc feature
<222> (2585)
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gtgcctccga ggcccccagc tggaagtgcc ttgttgcctc tgccctttga agtcggaaca 1800
attectagea cetgteggaa ggteaaggee aaaggeaaat teaaggeeag aetgtgaeaa 1860
acceaggget gaggeetgee ceatgaagag getgageece etgaaacece tgeecettgt 1920
tggtacattc cagaggcgca ggggcctggg ggatatgaag ctagggaagc ccctgcttcg 1980
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agggtccaca gcaagagcct gaggccatca gcagytcytc cgtgcagmga ggcccagaat 2160
teccacetaa ggacagacat ggggetteet atttagggac teccecagea tetecgatee 2220
aggggtgggg agcgtgacct tcactttaca gatgaagaaa ctgagtctga aagaggaggc 2280
atggettace caagateacg tggeagtgag tegacgeagg gacatattge cagaactgee 2340
ggcataggaa cgttaatgcc atgagacaag ggaaggattk gcttgctaaa mctcagccct 2460
tytgcagaag gcatkggtct atcccttctt cagcaaaggg gcaaggtcac taaaaatgaa 2520
catccataag ccacaaccac tggagaaant tttgcactgn ttagtgtagt tggttgaatg 2580
tgggnccccg gaaagagatg ttacttggac c
                                                                 2611
<210> 200
<211> 2316
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2280)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2282)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2302)
<223> n equals a,t,g, or c
ggcacgagga aacatggagt cctgtaggca aggtcttacc tgaatcagga tgagggagtg 60
gtgggtccag gtggggctgc tggccgtgcc cctgcttgct gcgtacctgc acatcccacc 120
ccctcagctc tcccctgccc ttcactcatg gaagtcttca ggcaagtttt tcacttacaa 180
gggactgcgt atcttctacc aagactctgt gggtgtggtt ggaagtccag agatagttgt 240
gettttacae ggttttecaa catecageta egaetggtae aagatttggg aaggtetgae 300
cttgaggttt catcgggtga ttgcccttga tttcttaggc tttggcttca gtgacaaacc 360
gagaccacat cactattcca tatttgagca ggccagcatc gtggaagcgc ttttgcggca 420
tetggggete cagaacegea ggateaacet tettteteat gaetatggag atattgttge 480
```

<223> n equals a,t,g, or c

```
tcaggagctt ctctacaggt acaagcagaa tcgatctggt cggcttacca taaagagtct 540
ctgtctgtca aatggaggta tctttcctga gactcaccgt ccactccttc tccaaaagct 600
actcaaagat ggaggtgtgc tgtcacccat cctcacacga ctgatgaact tctttgtatt 660
ctctcgaggt ctcaccccag tctttgggcc gtatactcgg ccctctgaga gtgagctgtg 720
ggacatgtgg gcagggatcc qcaacaatga cqqqaactta qtcattqaca qtctcttaca 780
gtacatcaat cagaggaaga agttcagaag gcgctgggtg ggagctcttg cctctqtaac 840
tatecccatt cattttatet atgggccatt ggateetgta aatecetate cagagttttt 900
ggagctgtac aggaaaacgc tgccgcggtc cacagtgtcg attctggatg accacattaq 960
ccactatcca cagctagagg atcccatggg cttcttgaat gcatatatgg gcttcatcaa 1020
ctccttctga gctggaaaga gtagcttccc tgtattacct cccctactcc cttatstgtt 1080
gtgtattcca cttaggaaga aatgcccaaa agaggtcctg gccatcaaac ataattctct 1140
cacaaagtcc actttactca aattggtgaa cagtgtatag gaagaagcca gcaggagctc 1200
tgactaaggt tgacataata gtccacctcc cattactttg atatctgatc aaatgtatag 1260
acttggcttt gttttttgtg ctattaggaa attctgatga gcattactat tcactgatgc 1320
agaaagacgt tcttttgcat aaaagacttt ttttaacact ttggacttct ctgaaatatt 1380
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tttagttata aacattttgt taaaatagat attggtttaa atgatacagt attttaggta 1620
tgatttaaga ctatgattta cctatacatt atatatattt tataaagata ctaaaccagc 1680
ataccettae tetgecagag tagtgaaget aattaaacae gtttggttte tgaataaatt 1740
gaactaaatc caaactattt cctaaaatca caggacatta aggaccaata gcatctqtqc 1800
cagagatgta ctgttattag ctgggaagac caattctaac agcaaataac agtctgagac 1860
tecteatace teagtggtta gaageatgte tetettgage tacagtagag gggaagggat 1920
tgttgtgtag tcaagtcacc atgctgaatg tacactgatt cctttatgat gactgcttaa 1980
ctccccactg cctgtcccag agaggctttc caatgtagct cagtaattcc tqttacttta 2040
cagacaggaa agttccagaa actttaagaa caaactctga aagacctatg agcaaatggt 2100
gctgaatact tttttttaa agccacattt cattgtctta gtcaaagcag gattattaag 2160
tgattattta aaattcgttt ttttaaatta gcaacttcaa gtataacaac tttgaaactg 2220
gaataagtgt ttattttcta ttaataaaaa tgaattgtga caaaaaaaaa aaaagggccn 2280
gncccgtttt aaaagggatc cnaagcttta ccgtac
                                                                  2316
<210> 201
<211> 1147
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (5)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (6)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (11)
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```
<220>
<221> misc feature
<222> (12)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (19)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1145)
<223> n equals a,t,g, or c
<400> 201
cgcannccac nnggtggang ccgctctaga atatggatcc cccgggactg cagggagtcc 60
aaggtacagt cgccgcgtgc ggagcttgtt actggttact tggcctcatg gcggtccgag 120
cttcgttcga gaacaactgt gagatcggct gctttgccaa gctcaccaac acctactgtc 180
tggtagcgat cggaggctca gagaacttct acagtgtgtt cgagggcgag ctctccgata 240
ccateccegt ggtgcaegeg tetategeeg getgcegeat categggege atgtgtgtgg 300
ggaacaggca cggtctcctg gtacccaaca ataccaccga ccaggagctg caacacattc 360
gcaacagcct cccagacaca gtgcagatta ggcgggtgga ggagcggctc tcagccttgg 420
gcaatgtcac cacctgcaat gactacgtgg ccttggtcca cccagacttg gacagggaga 480
cagaagaaat tetggcagat gtgctcaagg tggaagtett cagacagaca gtggccgacc 540
aggtgctagt aggaagctac tgtgtcttca gcaatcaggg agggctggtg catcccaaga 600
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ctgtgaaccg aggcagtgag gtgattgctg ctgggatggt ggtgaatgac tggtgtgcct 720 .
tetgtggcet ggacacaacc agcacagage tgteagtggt ggagagtgte tteaagetga 780
atgaagccca gcctagcacc attgccacca gcatgcggga ttccctcatt gacagcctca 840
cctgagtcac cttccaagtt gttccatggg ctcctggctc tggactgtgg ccaaccttct 900
ccacattccg cccaatctgt accggatgct ggcagggagg tggcagagag ctcactggga 960
ctgaggggct gggcacccaa cccttttcca cctgtgctta tcgcctggat ctatcattac 1020
tgcaaaaacc tgctctgttg tgctggctgg caggccctgt ggctgctggc tgagggttct 1080
1147
cggcnac
<210> 202
<211> 688
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (477)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (684)
```

```
<223> n equals a,t,g, or c
<400> 202
acgtaccggt ccggtaattc ccgggtcgac ccacgcgtcc gctcggcggg cgctgttgag 60
ggagtcgggc cgcgactgtg gtcgttttta taccttcccg cgcggacgcc ggcgctgcca 120
acggaagggc gggtaggacg gagtttcgtc atgttggcca ggcccatttg agatctttga 180
agatateete aaegtgagge tetgetgeea tgaaggtgaa gattaagtge tggaaeggeg 240
tggccacttg gctctgggtg gccaacgatg agaactgtgg catctgcagg atggcattta 300
acggatgctg ccctgactgc aaggtgcccg gcgacgactg cccgctggtg tggggccagt 360
geteceactg ettecacatg cattgeatee teaagtgget geacgeacag caggtgeage 420
agcactgccc catgtgccgc caggaatgga agttcaagga gtgaggcccg acctggntct 480
egetggaggg geatectgag acteetteet eatgetggeg cegatggetg etggggaeag 540
cgcccctgag ctgcaacaag gtggaaacaa gggctggagc tgcgtttgtt ttgccatcac 600
tatgttgaca cttttatcca ataagtgaaa actcattaaa ctactcaaat cttaaaaaaa 660
aaawaaawaa atctcggggg gggncccg
<210> 203
<211> 304
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (269)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (287)
<223> n equals a,t,g, or c
<400> 203
aaatgtgaaa actaaggcct tgcaagccta tggttcaccc aggggtagga tcaggcacct 60
taactctaga gcccattctc ctaaccactg agccatgatt gtcttacaat tttgaatact 120
gcaaaactgg aagaattgtc tggctattat ctaagctgtt cataagctgg aacaagtaga 180
tctgagggta agaggagttc tgttttaact aggactgagt ttcaaataga gatgtttcag 240
actatagagg gggaaaaatg gcckgggang tccataaatc taagccngtt tcatggatgt 300
tttt
                                                                   304
<210> 204
<211> 417
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (380)
<223> n equals a,t,g, or c
<400> 204
gggtcgaccc acgcgtccgc gcgggcgggg acggagctcg gcgtgcttgc tgctggaggg 60
```

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tgatggccct gcaaggctgt gggctccgac ctcaccggga gtcgamarcg agaggttcgc 120
cgaagagcga ggttctgggc gagcgctgaa cgccggcccc aagcaccccg ggtctttaca 180
cagteegegt ecacagaete tgaegaagae gtggatetge tetegettta getgetegeg 240
gtcctccaga tcatgtccgc gactcctgcg actccgcgcg gaaaaaaaag tttgccaggc 300
gtggactcaa tgacytttcc aastgtgcgc ctcgytgcct ggaccggttt gagcgcggtt 360
gcccaagttg aactttttgn ggggagggtt ttctctaagg gctgttgtct caatggg
<210> 205
<211> 551
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (450)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (458)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (471)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (484)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (519)
<223> n equals a,t,g, or c
<400> 205
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ttttttttt tggtttccag agtttggctt tattttgcag tacagaaatc atctggagcc 120
gtctgagaca gacatccctg aagcggaggc tctgtcaaat caatactgcg tcgcacttrg 180
tccgttgagg aagccacacc tggggtacaa aagaagcttc tacgtttacc cgctgtacca 240
cggatttctt tcccctttgc tcttaccaat tttaccaggt gaaaacaccg cacagaggct 300
tccctcggaa tgacgctcgg gtctggagtt gggttagaat tgtgggcccg cgtgaccccc 360
acctgtggct gtgttccgtg gccctgtcct aaacagctga cgggacacag acgtagaggg 420
geggggeeae geagggatge tgtteeeaan teaegganta tetggtggge ntegeaatgg 480
ccantgggac agatggcacg tgaaaggggc cgttccggnt ctcaagcggc agaagcacaa 540
                                                                  551
gaccgcggag g
<210> 206
<211> 1101
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<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (21)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (479)
<223> n equals a,t,g, or c
<400> 206
teccgggteg acceaegegt neegeceget ggaggetgga getteeggge eetggaaagg 60
ggtccccgcg cgccccgggt cggaggcaga cccctgggtt tgggggacat gggcatttgg 120
ggcgcctgaa cccaagacct ctggatgagc tgccccgttc agaccatgga tcctgaggtg 180
accttgctgc tgcagtgccc tggcgggggc ctgccccagg agcagataca ggccgagctg 240
agccccgccc atgaccgtcg cccactgcca ggtggggacg aggccatcac tgccatctgg 300
gagaccegge taaaggeeca accetggete ttegaegeec ceaagtteeg eetgeactea 360
gccaccetgg egectattgg eteteggggg ceaeagetge teetgegeet gggeettaet 420
tectacegag aetteetggg caccaactgg tecageteag etgeetgget gegacasang 480
ggtgccaccg actggggtga cacgcaggcc tatctggcgg acccactggg ggtgggcgct 540
gcactagcca cagcogatga cttoottgty ttootgcgcc gctcccggca ggtggctgag 600
gcccctgggc tggtggacgt acctggtggg caccctgagc ctcaggccct gtgccctggt 660
ggcagccccc agcaccagga cctcgctggg cagctggtgg tacatgaact cttttccagt 720
gtccttcagg agatctgtga tgaggtgaac ctgccgctgc tcaccctgag ccagcccctg 780
ctgttkggca tcgcccgaaa tgagaccagt gctggccgag ccagtgccga gttctatgtc 840
cagtgcagcc tgacttctga gcaggtgagg aagcactacc tgagtggggg acccgaggcc 900
cacgagtcta caggaatctt ctttgtggag acacagaacg tgcggagatt gcccgagacg 960
gagatgtggg ctgaactctg cccctcgcca aaggcgccat catcctctac aaccgggttc 1020
agggaagtcc cactggagcg gccctagggt ccccagccct actcccgccg ctctgaaaat 1080
aataaacgac tttattcttg g
<210> 207
<211> 515
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (428)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (439)
<223> n equals a,t,g, or c
<220>
<221> misc feature
```

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<222> (449)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (456)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (474)
<223> n equals a,t,g, or c
<400> 207
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acactgcgag aatacaaggt ggtggggcgc tgcctgccca cccccaaatg tcgcactccg 120
ccgctgtatc gcatgcgaat ctttgcacct aatcacgtgg tcgccaagtc ccgcttttgg 180
tactttgtgt ctcagctgaa aaagatgaag aagtcctcag gggaaatcgt ctactgtgga 240
caggtgtttg agaaatcccc cttgcgagtg aagaacttcg gcatctggct gcgctatgac 300
tegagaageg gtacceacaa catgtacegg ggagtacegg ggacetgace amegegggeg 360
ccgtcaccca gtggttaccg agacatgggc gcccgacacc gttgcccgag cgcattcgat 420
tccagatnct tgaagtggna ggagattgnc agccancaat tgccgccggg ccancattca 480
agcatttcca aggattccaa gatcaattcc cattg
<210> 208
<211> 269
<212> DNA
<213> Homo sapiens
<400> 208
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tcatcaattt tcatcaacac cttcctgggc catgcctggg tactgagraa cccagccctg 120
aatctggaca tcattttccc tttcagagca tagaatgcag ggggatccag ggaatgggtt 180
aacagaagag gaagctggwt caaggagacc tttgcgtacc aggtgaaggt gtttgaactt 240
tgttcttgca ggcaggcaga gcacggaca
<210> 209
<211> 734
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (278)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (732)
<223> n equals a,t,g, or c
```

<400> 210

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<400> 209
cgactggttg ttaccgagga agatggcggc gccagacccg aggcgctagg gaagatcgca 60
ccgcggacgc ccgctgagct tggcgcacgg gccgaccagg agctggtgac tgccctcatg 120
tgtgatttgc ggcggccagc ggcaggtggg atgatggact tggcctacgt ctgtgagtgg 180
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cgaaatctca tcgccttcac catggacctg cgcacgantg accaggacct gacccgcatg 300
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gacgggcaga tcaagtgctg gagcatggcg gaccacctgg ctaatagctg ggagagctca 480
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aaactggccc tgcacgtgga gaagtcgggc gcctccagct tcggggagaa gttctcccga 600
gtcaagttct caccygttct cacgctgttc ggcggcaagc catggagggc tggatcgcgg 660
tgacggtcag cggcctggtc accgtgtccc tgctgwaasc agcgggcagg tgctgacgtc 720
caccgagage tntt
<210> 210
<211> 658
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (561)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (567)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (577)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (580)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (636)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (654)
<223> n equals a,t,g, or c
```

```
cccgccagcg ttgaggttta tcacgacagc ctgtgccgaa aaatctggcg tgaggatgat 60
aaatggcatg tcatttttcg tgcagacggc tgggagcaac atattaccgc ccgctatctg 120
gtcggtgccg atggcgcaaa ctcgatggtg cggcgacatc tctacccgga tcatcaaatc 180
cgtaaatatg tcgctatcca gcagtggttc gcggagaaac atccggtgcc gttctactcc 240
tgcatctttg ataattcgat aactaactgt tattcatgga gtatcagcaa agacggktat 300
tttatctttg geggtgeeta tecaatggaa agaeggteag aegsgtttea sgaegettra 360
agagaaaatg agegeettte agttecagtt tggtaagaeg gtgaaaageg aaaaatgcae 420
gggtgctgtt tccctcgcgc tggcaggatt ttgtctgcgg taaggacaac gcctttcttg 480
attggtgaac ggcgggattt atcagcgcca gctcgctgga agggattagc tatgcgctgg 540
atagcacaga catttctgcg ntcgtgntac tgaacancon gagaagctca ataccgttac 600
tggcgcgcca cccgaaactg ggttaaactc ttcggnaaga tataaaaagc catnctga
<210> 211
<211> 204
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (91)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (94)
<223> n equals a,t,g, or c
<400> 211
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tatgcttacg acctgcagat acagtctgtt nttncacatg aagaaagtct caagttgctg 120
aagactgaat tgtaagaaaa atctccagcc cttctgtctg cagcttgaga cttgaaccag 180
agagtgtgag agctgctgtt ggag
<210> 212
<211> 1271
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1222)
<223> n equals a,t,g, or c
<400> 212
ttccgcagcc ttgccccagc ccactccccc tctcacccta ccacagagca tggtaaatac 60
caagcccgag aagacggagg aggactcaga ggaggtgagg gagcagaaac acaagacctt 120
cgtggaaaaa tacgagaaac agatcaagca ctttggcatg cttcgccgct gggatgacag 180
ccaaaagtac ctgtcagaca acgtccacct ggtgtgcgag gagacagcca attacctggt 240
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ccagacaatc gtcatgcaat ttatcctgga gctggccaag agcctaaagg tggacccccg 360
ggcctgcttc cggcagttct tcactaagat taagacagcc gatcgccagt acatggaggg 420
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```
cttcaacgac gagctggaag ccttcaagga gcgtgtgcgg ggccgtgcca agctgcgcat 480
cgagaaggcc atgaaggagt acgaggagga ggagcgcaag aagcggctcg gccccggcgg 540
cctggacccc gtcgaggtct acgagtccct ccctgaggaa ctccagaagt gcttcgatgt 600
gaaggacgtg cagatgctgc aggacgccat cagcaagatg gaccccaccg acgcaaagta 660
ccacatgcag cgctgcattg actctggcct ctgggtcccc aactctaagg ccagcgaggc 720
caaggaggga gaggaggcag gtcctgggga cccattactg gaagctgttc ccaagacggg 780
cgatgagaag gatgtcagtg tgtgacctgc cccagctacc accgccacct gcttccaggc 840
ccctatgtgc cccttttcag aaaacagata gatgccatct cgcccgctcc tgacttcctc 900
tacttgcgct gctcggccca gcctgggggg cccgcccagc cctccctggc ctctccactg 960
tetecactet ecagegeeea tteaagtete tgetttgagt caaggggett caetgeetge 1020
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1892

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gctggacgag gtcatggctg ccgctgcnst tacaagcctg tccaccagcc ctctccttct 180
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<222> (562)
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<222> (514)
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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178

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PCT/US00/05881

WO 00/55173

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<212> DNA

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<222> (476)
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<212> DNA
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<220>
<221> misc feature
<222> (311)
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<222> (809)
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<221> misc feature
<222> (814)
<223> n equals a,t,g, or c
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 actacaacca gggcctggtg ctgcctatgg ctctggagct catgacggtg ctggtgggca 240
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194

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PCT/US00/05881

WO 00/55173

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<212> DNA
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<211> 387

<213> Homo sapiens

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<211> 3712
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<213> Homo sapiens
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<221> misc feature
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<222> (889)
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<220>
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<211> 2320
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<213> Homo sapiens
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 <211> 1846
 <212> DNA
 <213> Homo sapiens
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 <223> n equals a,t,g, or c
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 <222> (1816)
 <223> n equals a,t,g, or c
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<211> 601
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (536)
<223> n equals a,t,g, or c
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<221> misc feature
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<222> (556)
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<211> 880
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (876)
<223> n equals a,t,g, or c
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<210> 271
<211> 2484
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (194)
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<223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (623)
 <223> n equals a,t,q, or c
 <220>
 <221> misc feature
 <222> (2396)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (2484)
 <223> n equals a,t,g, or c
<400> 271
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<213> Homo sapiens
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<222> (3279)
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WO 00/55173

## PCT/US00/05881

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218

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<222> (481)
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<222> (494)
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ccggtgaaca gaagatttgt ttggatttaa acatttacta agacagtacc tattaggaaa 240
accaaatatt gcaaatggtc aattcgattt taatttctca aaagatactc tgttatccag 300
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225

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PCT/US00/05881

WO 00/55173

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 <222> (344)
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<220>

<221> misc feature

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<222> (497)
<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
<220>
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<222> (524)
<223> n equals a,t,g, or c
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<222> (1455)
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<213> Homo sapiens
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PCT/US00/05881

WO 00/55173

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<sup>&</sup>lt;220>

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WO 00/55173

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262

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<222> (385)

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<222> (551)
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<223> n equals a,t,g, or c

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 ggggacagag cgagactcca tctcaaaaaa aaaaaaaaa aaaattaaaa attaagttct 120
 ttagttgcac tagccatatt tcaaatactt gatggataca tgtggctagt ggctaacata 180
 agggatagca cagatataaa acatttcctc ccaaagtgct gggattacag gcatgagcca 240
 ccgcgcccgg cctatcatat gaattttgag ggaacacaat catgcagtct gtagcagatg 300
 gtaataggct gatatattac acttgttgat gtaanctgga tangtttctt tcttctccaa 360
 ggacagcttt ttnaatattt aacantncca ttaatttttc agtttccggg agaattttat 420
 aatttaaaat tgccgactta ngganaancc aattggncca accattacaa tanatttta 480
 attccgntta aaaaatccca ccngnggggg aattccgctt aaaattttat tttccattat 540
 tcccaatggc ntnaattta
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 <211> 467
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<222> (135)
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<222> (145)
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<222> (393)
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<223> n equals a,t,g, or c

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<222> (456)
<223> n equals a,t,g, or c
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tgtcagtcag tgcgtgaagc caccaccgcc tccggtggna tgaatgcagc ctcccccga 120
ctggncagac accgntgnaa cgggnattat ttcaccctca gagagaggct gatcactatg 180
caaaaacaac tgggaggaaa cccagaagta tattgaatga gcagtgcaga ttagagttgc 240
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gagtnttaaa tgccttaaag taattaaaan ccggggcaat nccnttttac ggatgttttg 360
ctggggtttc cgtttttaac caacattttt ntnggggncc gnccacaaat tttggggttg 420
gnattggncg tttttcttn ntggccccat ttnccngnaa acggggg
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<222> (387)
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cttcctttcc tgtagggaat ctcacgtaaa atgaaatctt ccctccccca aggtgtccgc 120
aatgtngcca ntgtctgtct gcagattggc tacccaactg ttgcatcagt accccattct 180
atcatcaacg ggtacnaacg antcctggcc ttgtctgtgg agacggatta caccttccca 240
cttgctgaan aagtcanggc ttcttggctg atccatctgc cttngtggct gctgcccngt 300
tggctgctgc caccacaact gctcctgctg ctgctgcncc ccancttaag ttnaaaccca 360
agaaaatccg aagatccgan aaagatntgg attgggtctc tttgactaat caccaaaa 418
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<212> DNA
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<222> (9)
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<223> n equals a,t,g, or c
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<222> (478)
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<222> (485)
<223> n equals a,t,g, or c
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<222> (486)
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tegetatect gaegetggtg aacgeeeegt acaagegagg attttactge ggggatgaet 120
ccatccggta cccctaccgt ccagatacca tcacccacgg gctcatggct ggggtcacca 180
tcacggccac cgtcatcctt gtctcggccg gggaagccta cctggtgtac acagaccggc 240
totattotog ctoggactto aacaactacg tggctgctgt atacaaggtg ctggggactt 300
cctgtttggg gctgccgtga gccagtctct gacagacctg gccaagtaca tgattgggcg 360
totgaagece aattetaane gtetgegaae eegattgaae eggteaatge tegtnatgtg 420
cagtggagaa gtttgcaggg aacctnttga ttcacgagca gtgtttttaa tcggaatntc 480
tttgnn
<210> 333
<211> 268
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<212> DNA

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<222> (410)

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ttcaactana agtatcanaa tatagcnttc cagaaaaccc cgaancanag tcactgacta 120
catcaaagtc tactacacct tgagaaaaca aatgaacgan aatctatttt cctcattcat 180
taccccaaca ataataggac tccctatcgt aattattntc actatgtttc caagcattga 240
tatncccatc acctacccgn ctnntcaa
<210> 334
<211> 517
<212> DNA
<213> Homo sapiens
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<222> (214)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (259)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (302)
<223> n equals a,t,g, or c
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<222> (332)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (489)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (496)
<223> n equals a,t,g, or c
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taactggcta gaagtgccca acgtggaatg tttcttttt aaaggcggct cttgaagcga 120
cccggaagcg gaagtggaag aaagttctag tggcttgaga ttaagcctga tcaagatgac 180
aacctcccaa aagcaccgag acttcgtggc agancccatg ggggagaacc agtggggaac 240
ctggctggga ttggtgaant cctgggcaag aaactggaag aaagggtttt gacaaggcta 300
tnttgtcttg gccatttctg gtgctaaaaa anataaaaac tctcccggaa tggtgaaaan 360
ctttttgggc cacccaacat cccgaatgtc cgatgctcca aaatgtgcan cctcttttat 420
gtctttggaa tctctncccc cccccnatt tgaccaattg ganccccctt cctcaagaaa 480
atgttgttnc ccccanttcc ggttttgatt tccccac
                                                                  517
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<212> DNA
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<221> misc feature
<222> (155)
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<222> (226)
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<222> (244)
<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<222> (267)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (286)
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ggccgctcta gaactagtgg ggggcccggt acccaattcg ccctatagtg agtcgtatta 120
caattcactg gccgtcgttt tacaacgtcg tgacnnggaa aacntnnaat ncttccggct 180
cgtatgttgt gtggaattgt nagcggataa caattcacac aggnancagc tataaccatg 240
attnnnccaa gntcgaaatt aaccntnact aaaggggaca aaagtngggg ctccacg
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<212> DNA
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<221> misc feature
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<221> misc feature
<222> (148)
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 <222> (185)
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<221> misc feature
<222> (187)
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<220>
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<223> n equals a,t,g, or c
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<222> (275)
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<223> n equals a,t,g, or c

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<220>
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<221> misc feature
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<222> (337)
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<223> n equals a,t,g, or c
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<221> misc feature
<222> (346)
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<223> n equals a,t,g, or c

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caaaatgctg ctgggtgttt atgcctactt tatagagcat aagcagcgca acacccttat 120
ctggttgncg acggatggtg atgcccgnga actttatgaa aaacccacgt tgagcccgac 180
tattngngat attccgtcgn tgcntggggc tggccccgtg gtatggcaaa aaagcaccgg 240
gttnaacaag ntcaaccatg naagngtttc anctnaatgg gggggncccc gtaacccaat 300
tngncctata agtnnatggg antttaanaa ttcaatnggc cctngntttt aaatggtgng 360
tgntnggcct tttttttttn gtttgt
                                                                    386
<210> 337
<211> 506
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<213> Homo sapiens
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<221> misc feature
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  <220>
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  <220>
  <221> misc feature
  <222> (412)
 <223> n equals a,t,g, or c
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 <222> (437)
 <223> n equals a,t,g, or c
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<221> misc feature
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (471)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (472)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (481)
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  <220>
  <221> misc feature
  <222> (483)
  <223> n equals a,t,g, or c
  <220>
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  <222> (501)
  <223> n equals a,t,g, or c
  <400> 337
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  caccactatg taccetggca ttgccgaccg aatgcagaag gagatcacgg ccctagcacc 120
  cagcaccatg aagatcaaga tcattgcccc tccggaggcg caaatactct gtctggatcg 180
  gtggctccat cetggcctct ctgtccacct tccagcagat gtggatcagc aaacagggaa 240
  tacggtgaag ccgggccttc cattgtccac cgcaaatgct ttcttaaaac acttttcctg 300
  gttcctnttc tgtcttttag gcacacaact gtggaatgtn cctgtgggaa tttatggccn 360
  tttcagtttc tttttccaaa tcattcctag ggccaaagtt ttgnattggt tnanccatgg 420
  ggttttttta aataaantnt ggaaataggg ttaattggtt aaaaaaaann nnaaaaaaaa 480
  ntntggggg gggggcccg ntaccc
  <210> 338
  <211> 623
  <212> DNA
  <213> Homo sapiens
* <220>
  <221> misc feature
  <222> (441)
  <223> n equals a,t,g, or c
  <220>
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  <222> (508)
  <223> n equals a,t,g, or c
  <220>
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  <222> (509)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (513)
  <223> n equals a,t,g, or c
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  <222> (537)
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aagaaggage tgtctgacat cgctcaccge atcgtggcac ctggcaaggg catcctggct 120
gcagatgagt ccactgggag cattgccaag cggctgcagt ccattggcac cgagaacacc 180
gaggagaacc ggcgcttcta ccgccagctg ctgctgacag ctgacgaccg cgtgaacccc 240
tgcattgggg gtgtcatcct cttccatgag acactctacc agaaggcgga tgatgggcgt 300
cccttccccc aagttatcaa atccaagggc ggtgttgtgg gcatcaaggt agacaagggc 360
gtggtccccc tggcagggac aaatggcgag actaccaccc aagggttgga tgggctgtct 420
gagcgctgtg cccagtacaa ngaaggacgg agctgacttc ggccaagtgg cgttgtgtgc 480
ttaagaatgg gggaacacac cccctcannc ctnggcatca tggaaaatgc caattqntct 540
ggccccgtat gccagtatct ggcancagaa tgcattgggc cattegggga gtctgananc 600
tcctgatggg ancatgactt gaa
                                                                   623
<210> 339
<211> 344
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (157)
<223> n equals a,t,g, or c
<220>
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<222> (317)
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<222> (330)
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<222> (343)
<223> n equals a,t,g, or c
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<222> (344)
<223> n equals a,t,g, or c
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ttttttatat ttcaactaaa agtatcanaa tatagctttc cagaaaaccc cgaaccaaag 120-
tcactgacta catcaaagtc tactacacct tggaganaac aaatgaacga naatctattt 180
tecteattea ttaccecaac aataataggn etecetateg taattattat cactatgttt 240
ccaagcatta tattcccatc acctacccga ctaatcaata atcgactcat ctccattnca 300
acaatggatt agtgcantga acatgcaaan gcaaggatta tcnn
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<210> 340
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<212> DNA
<213> Homo sapiens
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<221> misc feature
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<220>
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<222> (343)
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<222> (345)
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ggaattcccg ggtcgaccca cgcgtccngn aggaggggac agctgcgggc gcggggaggg 120
ggcgccgngc cgcgnggngc catggnggac agnagagccg ggagtccgag anncgggccc 180
gcagcccgag atgtcgccgc catggcttcg ccgcagctct gccgcgcgct ggtgtcggcg 240
caatgggtgg cggaagcgct gcgggccccg cgcgctgggg cagcctctgc agctgntagg 300
acgectectg gtnacetgge eggaagetgg ggggegegna egnen
<210> 341
<211> 170
<212> DNA
<213> Homo sapiens
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<220>
<221> misc feature
<222> (23)
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<222> (43)
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<221> misc feature
<222> (86)
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<221> misc feature
<222> (160)
<223> n equals a,t,g, or c
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<222> (163)
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<222> (164)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (170)
<223> n equals a,t,g, or c
<400> 341
acceaegegt eegeceaegn tenegaetag ttetagateg egnaeggeeg etetagagga 60
tccaagctta cttggacatg catgcnacgt catagctctt ctatagtgtc acctaaattc 120
aattcactgg ccgtcgtttt acaacgtcgt gactgggaan atnntaaaan
<210> 342
<211> 387
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (238)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (273)
<223> n equals a,t,g, or c
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- 285

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<220>
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 <222> (328)
<223> n equals a,t,g, or c
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<222> (337)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (351)
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<221> misc feature
<222> (366)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (384)
<223> n equals a,t,g, or c
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aatgacttgg ttgagtactc accagtcaca gaaaagcatc ttacggatgg catgacagta 60
agagaattat gcagtgctgc cataaccatg agtgataaca ctgcggccaa cttacttctg 120
acaacgatcg gaggaccgaa ggagctaacc gcttttttgc acaacatggg ggatcatgta 180
actcgccttg atcgttggga accggagetg aatgaageca taccaaacga cgagegtnac 240
accacgatgc ctgtagcaat ggcaacaacg ttngcaaact attaactggc ggactactta 300
ctctagcttc ccggcaacaa tttatagnct tggtggnggc gggtaaagtt ncaaggccca 360
tttttnggtt tggccttccg gttngtt
                                                                   387
<210> 343
<211> 186
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (26)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (64)
<223> n equals a,t,g, or c
<220>
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WO 00/55173 PCT/US00/05881

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<221> misc feature
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<220>
<221> misc feature
<222> (109)
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<222> (152)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (153)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (160)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (183)
<223> n equals a,t,g, or c
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tatntcggac ncatctggtg acttccgcaa gctgatggtt gccctggcna aaggttaaaa 120
aacagaagaa tggtccgtcc ttgaatatga anngaatgan ccacatgccc ggatttcctt 180
                                                                   186
ganccc
<210> 344
<211> 611
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (11)
<223> n equals a,t,g, or c
<220>
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<221> misc feature
 <222> (285)
 <223> n equals a,t,g, or c
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 cgctctagaa ctagtggatc ccccgggctg caggaattcg gcacgagctg cgttgggctc 120
 cgggaageeg ttegggetgg ggetgtegge egeggggegg aggeaetege gegggggatg 180
 geceaetgeg tgaeettggt teagetgtee attteetgtg accateteat tgaeaaggae 240
 ateggeteca agtetgaece actetgegte ettttacagg atgtnggagg gggeagetgg 300
 gctgagcttg gccggactga acgggtgcgg aactgctcaa gccctgagtt ctccaagact 360
ctacagettg agtacegett tgagacagte cagaagetae getttggaat etatgacata 420
 gacaacaaga cgccagagct gagggatgat gacttcctag ggggtgctga gtgttcccta 480
ggacagattg tgtccagcca ggtactgact ctccccttga tgctgaagct ggaaaacctg 540
ctgggcgggg gaccatcacg gtctcagctc aggaattaaa ggacaatcgt gtagtaacca 600
 tggaggtaga g
<210> 345
<211> 344
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (289)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (296)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (329)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (331)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (342)
<223> n equals a,t,g, or c
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tttccttcta cagtattcct gaatttgacg aatggaaaaa acatatagaa aaccagaaag 60
cctggaaaat aaagtactat aaaggattgg gtactagtac agctaaagaa gcaaaggaat 120
attttgctga tatggaaagg catcgcatct tgtttagata tgctggtcct gaagatgatg 180
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PCT/US00/05881

288

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ctgccattac cttggcattt agtaagaaga agattgatga cagaaaagaa tggttaacaa 240
attttatgga agaccggaga cagcgtagct acatggctta ccagaggant gattcnctct 300
caactcagac atgaaagatc tataccacnc ntgttgatgg cntt
<210> 346
<211> 506
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (392)
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<221> misc feature
<222> (452)
<223> n equals a,t,g, or c
<220>
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<222> (453)
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<222> (472)
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<222> (480)
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<222> (495)
<223> n equals a,t,g, or c
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tgggattggt cttcttttt cttcagtgag ttttttcccc aacaggttct gatggtcctt 120
tggctaccag caaaccagtc cctgcagaaa agtcaggtct tccagtgggt cctgagaacg 180
gagtagaact ttccaaagag gagctgatcc gcaggaagcg cgaggagttc attcagaagc 240
atgggagggg tatggagaag tccaacaagt ccacgaagtc agatgctcca aaggagaagg 300
gcaaaaaagc acccegggtg tgggaactgg gtggctgtgc taacaaagaa atgttggatt 360
acagtacttc caccaccaat ggaacccctg angettgcct tgtctgagga cattaacctt 420
gattccaagg gactgggtct ggggggcact tnnggatctg gactgcacac tntgatgacn 480
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aagggcttgt taaantttcc aaacta
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<210> 347

WO 00/55173

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<211> 444
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (289)
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gctacgattt cagagtaccc tggtaatagc tgagcatgca aatgattccc tagcacccat 120 ·
tactttaaat accattactg cagccacacg ccttggaggt gaagtgtcct gcttagtagc 180
tggaaccaaa tgtgacaagg tggcacaaga tctctgtaaa gtagcaggca tagcaaaagt 240
tctggtggct cagcatgatg tgtacaaagg cctacttcca gaggaactna caccattgat 300
tttggcaact cagaagcagt tcaattacac acacatctgt gctggagcat ctgccttcgg 360
aaagaacctt ttgcccagag tagcagccaa acttgaggtt gccccgattt ctgacatcat 420
tgcaatcaag tcacctgaca catt
<210> 348
<211> 358
<212> DNA
<213> Homo sapiens
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<222> (19)
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<222> (52)
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<222> (280)
<223> n equals a,t,g, or c
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<222> (295)
<223> n equals a,t,g, or c
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<221> misc feature
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<222> (301)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (317)
<223> n equals a,t,g, or c
<220>
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<222> (348)
<223> n equals a,t,g, or c
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gacagacatg gaatcccaac cgcacaatgg gaaggetttc accaaacctg aaaggaagec 120
tgcagcttca ttttgagtgc agacttccct gctttggttg tgaaaggcca gtggtcttgc 180
agctggnaaa aggggtgatt gttgcaaaga gcaaagaaga ggcctgcaag ctgtacaaga 240
gatcatgcag gtaggctggg tcttctggaa aaatttactn ttgtattcat actgnatgaa 300
ntaccgtttt aagtttnaaa aatgttcctc acattaaggg aaattctntt ttgcaacc 358
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<212> DNA
<213> Homo sapiens
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<222> (187)
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<222> (206)
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<221> misc feature
<222> (301)
<223> n equals a,t,g, or c
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<222> (316)
<223> n equals a,t,g, or c
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tgcggaaccc ctacacgggt gccaccttcc tgctggccgc cctgcccacc agcctgctcc 120
tgctgcagtg gtatgagccg ctgcagaagt ttctgctgct gaagaacttc tccagccctc 180
tgcccanccc agctgggatg ctgganccgc tggtgctgga tgggaaggag ctgccgcagn 240
gtttttttgg ggccgaaggg cctaaagggc ccggttgccg gttcctgttc caannectgc 300
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<210> 350
<211> 742
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (618)
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<220>
<221> misc feature
<222> (653)
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<222> (658)
<223> n equals a,t,g, or c
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<221> misc feature
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<221> misc feature
<222> (702)
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  <221> misc feature
  <222> (707)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (714)
  <223> n equals a,t,g, or c
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 <221> misc feature
 <222> (719)
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 <220>
 <221> misc feature
 <222> (722)
 <223> n equals a,t,g, or c
 <220>
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 <222> (734)
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 cttcaatgca gaagtgcttt tccgagaaga ctgctccccg gacgagttca tcgatgtgat 120
 cgtgggcaac cgggtgtaca tgccctgcct gtatgtttat aacaaaatcg accagatctc 180
 catggaagag gtggaccgcc tggcccgaaa acccaacagt gtggtcatca gctgcggcat 240
 gaagetgaae etggaetate tgetggagat getetgggag taettggeee tgaeetgeat 300
ctacaccaag aagagaggac agaggccaga cttcacagac gccatcattc tccggaaagg 360
ggcctcagtg gagcacgtgg gcaccagcac caagtacagt ccgcagcggg tgggcctgac 420
ccacaccatg gagcatgagg acgtcatcca gatcgtgaag aagtaacggc gcctgccggg 480
cetteegeee acetgetegt etecettggg aggtggteee actgggaeae acaaacacee 540
aaacagaaaa atacaaatac acgtacccca agaaggggtc cctcaagtct ctgctattta 600
cagaagtttc ttcagtangc agaccaaaaa tgtgttgggc aaaagggctc ggntggangc 660
attttccata agactgagcc ctnttcatng ggggttttga gnttgantgc ttancctgna 720
tntgtgcctc caancccctg ac
                                                                   742
<210> 351
<211> 272
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (167)
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 <221> misc feature
 <222> (251)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (272)
 <223> n equals a,t,g, or c
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 gggctgacgt ttaaccagac cagcgagtca ctcagcgcac tggttaaggc gggggtaagc 120
 ggtgaggete agattgegte cateageeag agtgtggege gtttetnete tgcateegge 180
 gtggaggtgg acaaggtcgt tgaagcette gaggggggce egtacecatt tgcctatagt 240
aagcgtatta naataattgc cgtgttttaa an
<210> 352
<211> 256
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (170)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (236)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (248)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (251)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (252)
<223> n equals a,t,g, or c
<400> 352
gcagacgtcc agagcagagt cagccagcat gaccgagcgc cgcgtcccct tctcgctcct 60
gcggggcccc agctgggacc ccttccgcga ctggtacccg catagccgcc tcttcgacca 120
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ggccttcggg ctgccccggc tgccggagga gtggtcgcag tggttaggcn gcagcagctg 180
 gccaggctac gtgcgccccc tgccccccgc cgcatcgaga gccccgcagt ggccgngccc 240
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  <210> 353
  <211> 592
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 <222> (54)
 <223> n equals a,t,g, or c
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 <222> (93)
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<222> (485)
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<220>
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<222> (522)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (545)
<223> n equals a,t,g, or c
<400> 353
ggttcccttc cacgctgtgg aagcattgta ctttnggtct tcatgataaa tctngctgct 60
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gctcactcgt tgggtccgtg ccacctttaa aanctgtaac actcaccgcg aaggtctgca 120
acttcactcc tggggccagc aagaccacga gtgcaccgag aggaatgaac aactctggac 180
acaccatctt taagaaccgt aatactcacc gcaagggtct gcaacttcat tcttgaagtc 240
agtgaggcca agaacccatc aattccgtac acatttnggt gactttgaag agactgtcac 300
ctatcaccaa gtggtgagac tattgccaag cagtgagact attgccaagt ggtgagacca 360
tcaccaagcg gtgagactat cacctatcgc caagtggtcc taagtgtgaa cgtgaagtcc 420
ccagccctgc tgctgagcca gttgctgccc tacatggaga acaagaaggg tgctgtcatn 480
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ccttcaacat gccggaacca gcgaagtccg ctcccgcgcc caagaagggc tcgaagaaag 180
ccgtgactaa ggcgcagaag aaggacggca agaagcgcaa ggnanccgca aggagagcta 240
ctccgtatac gtgtacaagg tgctgaagca ggtccacccc gacaccggca tctcctctaa 300
ggccatggga atcatgaact ccttcgtcaa cgacatcttc gaacgcatcg cgggtgaggc 360
ttcccgcctg gcgcattaca acaagcgctc gaccatcacc tccagggaga tccagacggc 420
cgtgcgcctg ctgctgcccg gggagttggc caagcacgcc gtgtccgagg gcaccaaggc 480
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gccaggagct tgcctttccg ctgagtccag attggcaagt ggactacgaa gtcatacaca 360
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ggcgtttttg cagtaaggga cccgaacact gatcgctggg tggccacggg catcgtgtnc 240
ctngggcatc gngtgcagca gggccttatg gcttnttaca ccaaagtnct cnaacttncg 300
tggccttgga tcaagnnaga cctngganca ggaggactnc cgccccanca ttcactaggt 360
tccnaatcca gngagcagtt tcgcanaaan canccanaca cancttcccc ctntttngnn 420
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aaagaatccg cataccagga agggcgctgg gaaacactgc cctttcagcg ggccatcatg 180
aatgcgaatg ggcagcgact acatccgtga gtggaatgtg gtgaagtttg cccgtntcgg 240
ttattccaaa atgctgctgg gngtttatgc ctactttata gggcataagc agnggaacan 300
ccttatttgg tttccncagg atggtggatg cccgagaant ttttggaaaa cccacgttgn 360
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   tgtgatgaag gagatgggag gccatcacat tntagtcctc tttttgctca aggggggcta 120
  taaatttttt gctgacctgc tggattacat caaaggactg antagnaaat agtgnataga 180
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gtttgaggta cataagaaaa atgtaagggg tgaattcact tattatgaaa tacaagataa 180
tacagggaag atggaagtgg tggtgcatgg acgactgacc acaatcaact gtgaggaagg 240
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gagatetgta atteatagte acateaaggt cateaagace aggaaaaaca agaaagacat 360
actcaatcct gattcaagta tggaaacttc accagacttt ttcttctaaa atctggatgt 420
cattgacgat aatgtttatg gagataaggt ctaagtgcct aaaaaaatgt acatatacct 480
ggttgaaata caacactata catacaccc ancatatata ctagcttgtt aatcctatgg 540
aaatggggta tntggagnne ttttttaatt tttcatagnt ttttttnat aanaatggca 600
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aaaaaana
                                                                   668
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WO 00/55173 PCT/US00/05881

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gacgataget gaaaactgta cgataaacgg tacgetgagg geggaaaaaa tegtegggga 180
cattgtaaag gcggcgagcg cggcttttcc gcgccaggtg gaaagcagtg tggactggcc 240
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tgagccgtaa ttatcatctg cgcgggcgta ttctgcaggt gccgtcgaac tataacccgc 120
agacgcggca atacagcggt atctgggacg gaacgnttaa accggcatac agcaacaaca 180
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cagactggag gagttttcga aagantggaa ggatgccagt nataagtgga atgccatgtg 180
ggctntcaaa attnagcaga ccaaagacgn caaacgantt ttattctgct atttagtagt 240
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WO 00/55173 PCT/US00/05881

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309 -

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aatagtagca tttgctgacg ctgctgtaga acctattgat tttccaattg ctcctgtata 180
tgctgcatct atggtnctta aagatgtggg attgaaaaaa gaagatattg caatgtggga 240
agtaaatgga agcctttagt ctggttgtac tagcaaacat taaaaatgtt ggagattgga 300
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- 311

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<211> 254
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cccgggtcga cccacgcgtc cgcttctctg cctagaaggg ataatattat cactcttcgt 120
tataataaca atcaccatct taattaacca ccttacatta gccagcataa cccctatcat 180
ccttcttgta tntgcagcct gtgaagcnnc actggggctt atccctttta gttatnatct 240
caantacata cgga
<210> 367
<211> 185
<212> DNA
<213> Homo sapiens
<400> 367
gattggattc gacaacaaaa aagacctgct tatctcggtg ggcgatttgg ttgatcgtgg 60
tgcagagaac gttgaatgcc tggaattaat cacattcccc tggttcagag ctgtacgtgg 120
aaaccatgag caaatgatga ttgatggctt atcagagcgt ggaaacgtta atcactggct 180
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<211> 458
<212> DNA
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 ccggagtgag ccttgaacgc ctggacctgg acctcacagc tgacagccag ccacccgtct 120
 tcaaggtctt cccaggcagt accactgagg actacaacct tattgttatn gaacgtggcg 180
 ctgccgctgc acnaccggcc agccagggac tgcgcctgca ggaacccctg gngccccacc 240
 cctggntggn atggccattg tcaaggagga ggagacggag gctgccattg gagcccctcc 300
 tactgccact gagggncctg agaccaaacc tgtgcttatn gctcttgagg agggtcctgg 360
 tgctgagggt tcccggctgg actcactagt ggcanaacna ctcnggctgg aagtngtagc 420
 tctgagggac tcngccccag tgttggccgg gacctgat
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 <211> 288
 <212> DNA
<213> Homo sapiens
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coccegectee necectettt geactegee tetagteet gentagegee egengeeeeq 120
ccgccgccaa cagctcgggg gacggcgggg cggcggggcga cggcaccgtg gtggactgtc 180
ccgtgtgcaa gcaacagtgc ttctccaaag acatcgtgga gaatnatttc atgcgtgana 240
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  <222> (263)
  <223> n equals a,t,g, or c
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  ntcctccgcc gccgcggact ccggcagctt tatcgccaga ntccctgaac tctcgctttc 120
  tttttaatcc cctgcatcgg ntcaccggcg tgccccacca tgtcagacgc agccgtagac 180
 accageteeg aaatcaceae caaggaetta aaggagaaga aggaagtttt ggaaagagge 240
 agaaaatgga agagacggcc ctncttaacg gggaatgcta atttagggaa at
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tggccagtca tggcaagggt taacaaaaga aagggcaaag cttaattggc ttagtgtcga 180
cttcaataat tgggaaagac tgggaagatg attcaaatga agacatgtct aattttgaat 240
cgtttctctg aggattcaca agacagtgat gatggnaaaa atgccagatc tgggagtaag 300
ggaatattgt contcacctg ggtttttgag gaaaggaaaa tnaactttct ctggcaaggt 360
tttccataat ttgngaggaa ttccccgagt ttgttagcnc ctaaagggcn gttatgctcg 420
tatttgnccc actntaaccc ctttttnnca nccggtttgt ttttttaaaa gggcttc
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WO 00/55173 PCT/US00/05881

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 agaaganatc cttnacccct gtaggaatgt ttttgaaact aaatttnatg aacgtnaaat 120
 ttnccagtgg ttattatgaa cttccttgtc gaagttgaaa ggtgaacaac nctnatattg 180
 caaataccgt agagcttcag agtgcaagat tctccactgn angttgggca ttcacaaatg 240
 ttggatettt eccaeegtgg gatgaagggt teagaggeat tgeaeccaaa atnaeeeggg 300
 tgaacatacc cagnccaaag cccaggggna cattnatcgn ggacaggccc nccagaattt 360
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gagacttggg gatggaaccg cacagagccg cgggcccttt gcagctgcga ttttcgccct 120
acgttttcaa cggaggtact atactggcaa ttgctggaga agattttgca attgttgctt 180
ctgatactcg attgagtgaa gggttttcaa ttcatacgcg ggatagcccc aaatnttaca 240
aattaacaga caaaacagtc attggatgca gcggttttca tggagactgt cttacgctga 300
caaagattat tgaagcaaga ctaaagatgt ataagcattc caataataag gccatgacta 360
cgggggcaat tgctgcaatg ctgtctacaa tcctgtattc aaggcgcttc tttccatact 420
atgtttacaa catcatcggt ggacttgatg aagaaggaaa gggg
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<212> DNA
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agageegegg geeetttgea getgegattt tegeeetaeg ttttcaaegg aggtactata 120
ctggcaattg ctggagaaga ttttgcaatt gttgcttctg atactcgatt gagtgaaggg 180
ttttcaattc atacgcggga tagccccaaa tgttgncnna ntaacagaca aaacagtcat 240
tggatgcagc ggttttcatg gagactgtct tacgctgaca aagattattg aagcaagact 300
aaagatgtat aagcattcca ataataaggc cntgactacg gggggcaatg ctggcangcn 360
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gtacacaacc gcccaactgc tggcggcaaa tgagcagaaa tttaagtttg atccgctgtt 120
tetgegtete ttttteegtg agagetatee etteaceaeg gaggaaagte tateteteae 180
aaattccggg actggtaaac atggcgctgt acgtttcgcc gattgtttcc ggtgaaggtt 240
atcccgttnc cctggcggnt tccacctntg aatttaaggc cgggataatg tcnaagcccg 300
aagcatgnaa gtg
                                                                   313
<210> 376
<211> 375
<212> DNA
<213> Homo sapiens
<400> 376
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gtccaggggc cgacagcgcc caggcgggca gaggggcttc atgtcaggga tgccccaacc 120
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<223> n equals a,t,g, or c

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tgaagtgcac acagacacca acaagnttgc ngaatttctg nangcagtgc tgtgccctcc 180
caggtacccc aanctggcag ctctgaaccc tnantccaac acagctgngc tgganatatt 240
tgncaaattn tctgcctaca tnnnnanttc aaacccagna ctcaatgaca atctggagaa 300
nggactcctg aaagccctgn acgttttagn caattantta acatcccccc nctcagaaga 360
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ttccttaatt ctntgctggc tgataatcat cacctgcagg ttggctccaa ttatttgtat 180
attcataaaa tcgatggaaa aacttttctc tttaccaaaa caaatgacaa gagtctggtt 240
cagaagataa atcgctctaa agcttcagtt gaagatatta agaacagcct cgtngatgac 300
ggaatcattg ggattcccat cttttttgtt tgttgaaggc gacaccattg gtttttgcca 360
gaactgnttt tegggnegge cacatnegnt tttgacaggt ttttttaate ggggaaggga 420
ntgtccttaa ggcgtggggn gcngttcagt tggggccctg ttggggggac cnccaaggng 480
gtggttatgg cnnggntttc atnggc
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<223> n equals a,t,g, or c

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<210> 379
 <211> 550
 <212> DNA
 <213> Homo sapiens
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 <222> (6)
<223> n equals a,t,g, or c
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<222> (9)
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<400> 379
gacganacna acceteacta aagggaacaa aagetggage tecacegegg tgeggeeget 60
ctagaactag tggatccccc gggctgcagg aattcggcac gaggccatcc agactgagga 120
agacccggaa acttaggggc cacgtgagcc acggccacgg ccgcataggc aagcaccgga 180
agcaccccgg cggccgcggt aatgctggtg gtctgcatca ccaccggatc aacttcgaca 240
aataccaccc aggctacttt gggaaagttg gtatgaagca ttaccactta aagaggaacc 300
agagettetg cecaactgte aacettgaca aattgtggae tttggteagt gaacagacae 360
gggtgaatgc tgctaaaaac aagactgggg ctgctcccat cattgatgtg gtgcgatcgg 420
gctactataa agttctggga aagggaaagc tcccaaagca gcctgtcatc gtgaaggcca 480
aattottoag cagaagagot gaggagaaga ttaagagtgt tgggggggco tgtgtootgg 540
tggcttgaag
<210> 380
<211> 573
<212> DNA
<213> Homo sapiens
<220>
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<222> (4)
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<220>
<221> misc feature
<222> (6)
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<220>
<221> misc feature
<222> (10)
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<222> (160)
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 aagncnagan agccaaccet cactaaaggg aacaaaaget ggageteeac egeggtgegg 60
 ccgctctaga actagtggat cccccgggct gcaggaattc ggcacgagcg caaagaaggg 120
 tggcgagaag aaaaagggcc gttctgccat caacgaaggn taacccgaga atacaccatc 180
 aacattcaca agegeateea tggagtggge tteaagaage gtgeaceteg ggeactcaaa 240
 gagattcgga aatttgccat gaaggagatg ggaactccag atgtgcgcat tgacaccagg 300
 ctcaacaaag ctgtctgggc caaaggaata aggaatgtgc cataccgaat ccgtgtgcgg 360
 ctgtccagaa aacgtaatga ggatgaagat tcaccaaata agctatatac tttggttacc 420
 tatgtacctg ttaccacttt caaaatttct gtgctaaaca gtgttacagt cgccaagagc 480
 ccataaaggg agccctcctg gaagtggatg aggccttggg tctcggctct tcattgcttc 540
 ctgagctgca gcagatgcct ttacaaccaa gct
 <210> 381
 <211> 531
 <212> DNA
 <213> Homo sapiens
 <220>
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<222> (5)
<223> n equals a,t,g, or c
<220> -
<221> misc feature
<222> (8)
<223> n equals a,t,g, or c
<400> 381
gcagnacnaa ccctcactaa agggaacaaa agctggagct ccaccgcggt gcggccgctc 60
tagaactagt ggatcccccg ggctgcagga attcggcacg aggcggcgtt ggcggcttgt 120
gcagcaatgg ccaagatcaa ggctcgagat cttcgcggga agaagaagga ggagctgctg 180
aaacagctgg acgacctgaa ggtggagctg tcccagctgc gcgtcgccaa agtgacaggc 240
ggtgcggcct ccaagctctc taagatccga gtcgtccgga aatccattgc ccgtgttctc 300
acagttatta accagactca gaaagaaaac ctcaggaaat tctacaaggg caagaagtac 360
aagcccctgg acctgcggcc taagaagaca cgtgccatgc gccgccggct caacaagcac 420
gaggagaacc tgaagaccaa gaagcagcag cggaaggagc ggctgtaccc gctgcggaag 480
tacgcggtca aggcctgagg ggcgcattgt caataaagca cagtggctga g
<210> 382
<211> 300
<212> DNA
<213> Homo sapiens
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<223> n equals a,t,g, or c
<220>
<221> misc feature
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<220>
<221> misc feature
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<220>
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<222> (203)

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   <221> misc feature
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   <223> n equals a,t,g, or c
   <220>
   <221> misc feature
   <222> (292)
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   <220>
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  <222> (293)
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  <220>
  <221> misc feature
  <222> (300)
  <223> n equals a,t,g, or c
  <400> 382
  ngggngtacc acaaatataa ggcaaagagg aactgctggn cangagtacg gggtgtggnc 60
  atgaatcctg tggagcatcc ttttggaggt ggcaaccacc agcacatcgg caagcctcc 120
  accatecgca gagatgcccc tgetggccgc aaagtgggte teattgetge nngenggant 180
 ggangtctcn ggggaaccaa gantgtgcag gagaaagaga actagtgctg agggcctcaa 240
 taaagtttgt gtttatgcca aaaaaaaaaa naaaaaaaaa aaaaaaaag annaaagagn 300
 <210> 383
 <211> 475
 <212> DNA
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 <222> (36)
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<220>
<221> misc feature
<222> (146)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (363)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<222> (367)
 <223> n equals a,t,g, or c
 <220>
<221> misc feature
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<223> n equals a,t,g, or c
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<221> misc feature
<222> (404)
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<221> misc feature
<222> (415)
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<222> (450)
<223> n equals a,t,g, or c
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<222> (451)
<223> n equals a,t,g, or c
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gtggcttccg cgaggtttcg gcagtggcat ccggggccgg ggtcgcggcc gtggacgggg 120
ccggggccga ggccgcggac tcgcgnaggc aaggccgagg ataaggagtg gatgcccgtc 180
accaagttgg gccgcttggt caaggacatg aagatcaagt ccctggagga gatctatctc 240
ttctccctgc ccattaagga atcagagatc attgattctt cctggggggct ctctcaagga 300
tgagttttga agatatgcca tgcagaagca gaccctgccg gccacgcacc agttcaagca 360
ttnttgnaac gggattaaat gccactcgtt tggtttaatg nccnagagtg gcacncatcc 420
tgggcaaaac tggcaaattt caagtccttn naagtatggg gaaaatggaa cccaa
<210> 384
<211> 127
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (5)
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<220>
<221> misc feature
<222> (8)
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   <221> misc feature
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  <222> (62)
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  <220>
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  <222> (71)
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  <220>
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  <222> (103)
  <223> n equals a,t,g, or c
  <220>
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 <222> (124)
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 angagattaa ncagagacac aggcaattgt atgtcagcag ctngatttaa cccacctaaa 120
 aggngcg
                                                                    127
 <210> 385
 <211> 317
 <212> DNA
<213> Homo sapiens
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<222> (264)
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<222> (308)
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<222> (311)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (316)
<223> n equals a,t,g, or c
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gagaccagtg agaaacgccc cttcatgtgt gcttacccag gctgcaataa gagatatttt 120
aagctgtccc acttacagat gcacagcagg naagcacact ggtgagaaac cataccagtg 180
tgacttnaag gactgtgaac gangttttct cgttcagacc agctcaaaag ncaccaaagg 240
aggacataca ggtgtgaacc attnccagtg taaaattgtt cagcgaaatt ctcccggtcc 300
gaccaacnga ngaccna
<210> 386
<211> 433
<212> DNA
<213> Homo sapiens
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<222> (295)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<222> (311)
 <223> n equals a,t,g, or c
 <220>
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 <222> (359)
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 <220>
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 <222> (385)
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 <221> misc feature
 <222> (405)
 <223> n equals a,t,g, or c
<220>
 <221> misc feature
 <222> (407)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (427)
 <223> n equals a,t,g, or c
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tttcaaaagc tatttaggtg acactataga aggtagcctg caggttaccg gtccggaaat 60
tecegggteg acceaegegt eegeegagag eettageega eggaaactgg acaetggaac 120
cggcagcgcc atgagactcc tcccccgctt gctgctgctt ctcttactcg tgttccctgc 180
cactgtcttg ttccgaggcg gccccagagg cttgttagca gtggcacaag atcttacaga 240
ggatgaagaa acagtagaag attccataat tgaggatgaa gatgatgaag ccgangtaga 300
agaagatgaa nccacagatt ttgtagaaga taaagaggaa gaagatgtgt ctggtgaanc 360
tgaaacttta ccgagtgcag atacnactat actgtttta aaggngnaga ttttccgcca 420
ataacantgt gaa
<210> 387
<211> 407
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (315)
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<220>
<221> misc feature
<222> (356)
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<223> n equals a,t,g, or c
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 <222> (359)
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 <222> (373)
<223> n equals a,t,g, or c
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<222> (376)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (407)
<223> n equals a,t,g, or c
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atttgaagca aacaggcagc gcgcgacaat ggcggtcgct cgtgcagctt tggggccatt 60
ggtgacgggt ctgtacgacg tgcaggcttt caagtttggg gacttcgtgc tgaagagcgg 120
gettteetee eccatetaca tegatetgeg gggeategtg tetegaeege gtettetgag 180
tcaggttgca gatattttat tccaaactgc ccaaaatgca ggcatcagtt ttgacaccgt 240
gtgtggagtg ccttatacag ctttgccatt ggctacagtt atctgttcaa ccaatcaaat 300
tccaatgctt attanaagga aagaaacaaa ggattatgga actaagcgtc ttgtanaang 360
aatattaatc canganaaac tgtttaatca ttgaaatgtt gtcccan
                                                                   407
<210> 388
<211> 244
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (215)
<223> n equals a,t,g, or c
<220>
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<222> (221)
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<400> 388
ttcgttcatc tatcggatcg ccacactcac aacaatgagt ggcagatata gcctggtggt 60
traggreggeg cattittatt getgtgttgc getgtaatte ttetattet gatgetgaat 120
caatgatgtc tgccatcttt cattaatccc tgaactgttg gttaatacgc ttgagggtga 180
atgcgaataa taaaaaagga gcctgtagct ccctnatgat nttgcttttc atgttcatcg 240
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338

ttcc <210> 389 <211> 239 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (1) <223> n equals a,t,g, or c <220> <221> misc feature <222> (21) <223> n equals a,t,g, or c <220> <221> misc feature <222> (55) <223> n equals a,t,g, or c <220> <221> misc feature <222> (64) <223> n equals a,t,g, or c <220> <221> misc feature <222> (71) <223> n equals a,t,g, or c <220> <221> misc feature <222> (116) <223> n equals a,t,g, or c <220> <221> misc feature <222> (128) <223> n equals a,t,g, or c <220> <221> misc feature <222> (163) <223> n equals a,t,g, or c <220> <221> misc feature <222> (185) <223> n equals a,t,g, or c

<223> n equals a,t,g, or c

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<222> (202)
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<222> (205)
<223> n equals a,t,g, or c
<400> 389
nggactggcg tcagacgtcg nattccggcg cccacggtcg gcttaaaccc tggtncaatc 60
ctgncgcccg ncgtgatgcc agggaagaca gggcgacctg gaagtccaac tacttnctta 120
agatcatnca acgtattggg atgattatcc taaaatgggt tcnattggtg ggtagcgagt 180
acganatggt ggggcntcct anagntagta tggcgagcta gagtcccggc taatgttcc 239
<210> 390
<211> 382
<212> DNA
<213> Homo sapiens
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<222> (54)
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<222> (103)
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<221> misc feature

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<222> (374)
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cgcgctgcnc gcacactgag gccgcccggg acaaagcccg gnntcggngc gacctttggt 120
cccggnctca gtgagcgagc gagcgcgcag agagggagtg gccaacttna tcactagggg 180
ttccttgtag tnaatgatta acccgccatg ctacttngnc nacgtagcca tgggntacca 240
agetegaget etetagaete gaegegegta atacgaetea etatagggeg aatttgaget 300
ccaccgcggt tgcggccgct ctactagagt cgacctcatg gnttnncccc gaaacccgcn 360
aacacccgct gacncgccct ta
<210> 391
<211> 375
<212> DNA
<213> Homo sapiens
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<222> (6)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (7)
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<220>
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<222> (48)
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  <222> (138)
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<220>
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<222> (279)

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<222> (299)
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<222> (351)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (366)
<223> n equals a,t,g, or c
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<222> (370)
<223> n equals a,t,g, or c
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tgcaanngaa tacacactaa ggacaagtgg actcacggtg cgccctcnga ctagtggtcc 60
cgggtgcagn tgccagggtg gcctgagcga tctacggatg ggcngtatgg agtggangag 120
acgagatgcg ggtgttanag cagggnctga ccggagtgnc acacatgagt gtcaggtgca 180
ggtagtccga gtcggcgaca tgagcctnga gtagagtcat cantcgatga gatctggagg 240
caactggcga gcaagaccgt ntggtgcant gtcantcang ctgttgcagg tgagagcant 300
gcactcgtcg agtggcgaga cagatcaatc tctgttagcg ggtggaggtt ncactcgcgc 360
tgtggnggtn cactg
                                                                   375
<210> 392
<211> 121
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (3)
<223> n equals a,t,g, or c
<220>
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  <222> (118)
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 <222> (120)
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 gantcatcng agngtgtgga tttgagccgc cgcatttttt aaccctaaat ctcganatgc 60
 atcgtgnttc ctgtccattg gactgtaagg tttatgtagg catcttggga acnatggnan 120
 <210> 393
 <211> 83
 <212> DNA
<213> Homo sapiens
<220>
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<222> (65)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (70)
<223> n equals a,t,g, or c
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<220>

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<222> (73)
<223> n equals a,t,g, or c
<400> 393
aaaanncccn ggngggggcc ccc
<210> 394
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<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (13)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (64)
<223> n equals a,t,g, or c
<400> 394
gtcggcgcag aangcgcccc gcaccccgc caggcgcatg tctgcacctc cgcttgccaa 60
aggneetegg teagegactg gatgetegee ateaaggtee agtggaagtt etteaagagg 120
aaaggcgccc ccgccccagg cttccgcgcc cagcgctcgc cacgctcagt gcccgtttta 180
ccaataaact gagcgacccc aaaaaaaaa aaaaaaag
<210> 395
<211> 83
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (11)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (13)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (83)
<223> n equals a,t,g, or c
<400> 395
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aaaaaaaaa aaaaaaaaa aan
                                                             83
   <210> 396
  <211> 70
  <212> DNA
  <213> Homo sapiens
  <220>
  <221> misc feature
  <222> (69)
  <223> n equals a,t,g, or c
  <400> 396
  <210> 397
  <211> 140
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc feature
 <222> (50)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (57)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (74)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (93)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (113)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (114)
<223> n equals a,t,g, or c
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<220>

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<220>
<221> misc feature
<222> (115)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (139)
<223> n equals a,t,g, or c
<400> 397
aatttgacca gagaacaaga ataacccggc ctcagcgccg ggttttcttn gcctcangat 60
cgcccccaaa acanataacc aattgtattt atngaaaaat aaatagatac aannnactaa 120
acatagcaat tcagatctnt
<210> 398
<211> 157
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (10)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (65)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (121)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (122)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (123)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (126)
<223> n equals a,t,g, or c
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<221> misc feature
   <222> (134)
   <223> n equals a,t,g, or c
   <220>
   <221> misc feature
   <222> (150)
  <223> n equals a,t,g, or c
  <400> 398
  aatteggean ageteaagea gaeggggete aagggggtta catttaataa aaggatgaag 60
  nnnccngggg gggncccccc cccccttn ccccctt
  <210> 399
  <211> 358
  <212> DNA
  <213> Homo sapiens
  <220>
  <221> misc feature
  <222> (5)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (84)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (204)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (207)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (302)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (305)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<222> (70)

<223> n equals a,t,g, or c

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<222> (308)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (331)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (341)
<223> n equals a,t,g, or c
<400> 399
ggcanagcgg cagaggcggc teccactete ggaaeettgt eetgtttte eeccageteg 60
gcaagcgcca tatgagcctg gcgncgccaa tagcgaatcc tgttgtgggc tttttggcct 120
attoccgccc ctcagtcttg ccgggatggc accgcccgca taggacticc agggttgggc 180
tgagtgggag ttcgactgct gggnctngta attctcgctt tgggggctgc tccttccagg 240
ctggggacac actggggccc gttgttcggt ctcccgtcct ccgacatctt gtctggaact 300
tncgnctngc agtttccata ggagttggag nctgtgcggc ntaattttgg tggaaaaa
<210> 400 -
<211> 399
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (15)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (27)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (33)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<220>
   <221> misc feature
   <222> (83)
   <223> n equals a,t,g, or c
   <220>
  <221> misc feature
  <222> (115)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (117)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (169)
  <223> n equals a,t,g, or c
  <220>
 <221> misc feature
 <222> (171)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (213)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (216)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (218)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (231)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (239)
<223> n equals a,t,g, or c
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<220>

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  <222> (245)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (248)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (255)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (262)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (269)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (279)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (283)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (292)
  <223> n equals a,t,g, or c
  <220>
<221> misc feature
  <222> (316)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (325)
 <223> n equals a,t,g, or c
 <220>
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<221> misc feature

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<222> (349)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (364)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (382)
 <223> n equals a,t,g, or c
<400> 400
ttttttttt ttttnaaaag ggcacanata canttttacc gtttanacca aaccagaatc 60
aaaacccaan tcagagtatc canaaatcca agccaggtca aaaccaaaac gaaantntca 120
agcaatccaa atcaagtcaa aaacaaaaac caaagtgccg gtacaggcnt nccgtgggtg 180
atcaggccac cettecacte aaatggagtg ggnaantnee aaagactagt nttaccaant 240
ttcanatntc cggantccaa gngcctgtnc cttcccagng ttnagccgct gnattgatcc 300
tctgtggggg cctgcnaaac gccantctgg cgaggtgttc cactggggna attgcctacc 360
cggnagtgct ctcaggttct gngtccctca agctggcca
                                                                   399
<210> 401
<211> 189
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (11)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (162)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (165)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (166)
<223> n equals a,t,g, or c
```

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<220>
 <221> misc feature
 <222> (187)
 <223> n equals a,t,g, or c
 <400> 401
 naattcggca nagcaaacca caccttctct ttcttatgtc tttttactac aaactacaag 60
 acaattgttg aaacctgcta tacatgttta ttttaataaa ttgatggcaa aaaaaaaaa 120
 cccccntt
 <210> 402
 <211> 174
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc feature
 <222> (10)
 <223> n equals a,t,g, or c
 <220>
<221> misc feature
 <222> (73)
<223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (103)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (107)
<223> n equals a,t,g, or c
<220> '
<221> misc feature
<222> (130)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (132)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (146)
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<223> n equals a,t,g, or c

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<220>
 <221> misc feature
 <222> (149)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (167)
 <223> n equals a,t,g, or c
 <400> 402
 aatteggean agetgaggea ggagaatege ttgaattegg gaggeagage tgagateaca 60
 cctctgacac tcnagcctgg gtgacagagc gagactccgt ctnaggnaag gaaaaaaaa 120
 aaaaaaaan cncggggggg gccccngtnc ccaattggcc ctatagnggg tcgt
 <210> 403
 <211> 263
 <212> DNA
<213> Homo sapiens
<220>
<221> misc feature
 <222> (5)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (231)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (236)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (242)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (252)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (260)
<223> n equals a,t,g, or c
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<400> 403
 ggcanagcca acccagcagt cettecetca getgeetagg aggaagggae ceagetgggt 60
ctgggaccac aagggaggag actgcacccc actgcctctg ggccctggct gtgggcagag 120
 gccaccgtgt gtgtcccgag taaccgtgcc gttgtcgtgt gatgccataa gcgtctgtgc 180
anaaagaaaa anaaaaaaan aaa
 <210> 404
 <211> 478
 <212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (159)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (259)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (427)
<223> n equals a,t,g, or c
<400> 404
tcgacccacg cgtccggggg ctgcagcatg ttgctgagga gtgaggaata gttgagcccc 60
aagtcctgaa gaggcgggcc agccaggctg acatctgtgt ttcaagtggg gctcgccatg 120
ccgggggttc ataggtcact ggctctccaa gtgccagang tgggcaggtg gtggcactga 180
gcccccccaa cactgtgccc tggtggagaa agcactgacc tgtcatgccc ccctcaaacc 240
tectettetg aegtgeetnt tgcaececte ceattaggae aatcagteee eteceatetg 300
ggagtcccct tttctttct accctagcca ttcctggtac ccagccatct gcccaagggt 360
geocetect eteceatece cetgeceteg tgggcagece ggetggtttt gtaaatgtgg 420
gttgtgnaca gtgattttt cttgtattta aaaaaggcca gcattgtggt tcattaaa
<210> 405
<211> 223
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (147)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (158)
<223> n equals a,t,g, or c
```

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<220>
  <221> misc feature
   <222> (172)
  <223> n equals a,t,g, or c
  <220>
 <221> misc feature
  <222> (217)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (223)
  <223> n equals a,t,g, or c
  <400> 405
  agacagcagg acggtggcca tggaagtcgg aatccgctaa ggagtgtgta acaactcacc 60
  tgccgaatca actagccctg aaaatggatg gcgctggagc gtcgggccca tacccgtccg 120
 tegeeggeag tegagagtgg aeggganegg egggggenge gegegegeg gnegtgatgg 180
  tgtgcgtcgg agggcggcgg cggcggcggg ggtgtgnggt ccn
 <210> 406
 <211> 104
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc feature
 <222> (8)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (37)
 <223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (81)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (93)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (103)
<223> n equals a,t,g, or c
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<400> 406
cccacgente egeogacage ageageetea ccatgangtt getgatggte eteatgetgg 60
eggeeetete ecageactge nacgeagget etngetgeee etna
<210> 407
 <211> 66
 <212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (17)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (21)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (57)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (66)
<223> n equals a,t,g, or c
<400> 407
gccctatagt gagtetngta neaattcact ggccgtcgtt ttacaacgtc gtgacgngga 60
aaactn
<210> 408
<211> 278
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (6)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (19)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<222> (252)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (275)
 <223> n equals a,t,g, or c
<400> 408
 gggcanagca agctcctgna cctcaagtga tccacatgcc ttggttgacc aaattgctgg 60
 gattacaggc atgagccaat atgaccagct caaacatctt ctttttaaat gtcagaagca 120
 tgtatagtga ttatttctta ttttttcccc cttgatccat ctcaccagat gtttgttgat 180
 tttataagaa ttttcaaact accagcttct ggctttgttg aacttgggat ttctgtttca 240
ctaattttct tnctcctgtc ttgtacttac tttgntgg
<210> 409
<211> 168
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (16)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (38)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (127)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (140)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (143)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (145)
<223> n equals a,t,g, or c
<220>
```

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<221> misc feature
<222> (167)
<223> n equals a,t,g, or c
<400> 409
aataaaactc taaaangatc actataaaaa aagcaggnac gcctgcaggt accggtccgg 60
aattoccggg togacccacg cgtccgacgg ctgcgagaag acgacagaag ggcacggctg 120
cgagaanacg acagaagggn gcnantgaaa gaaggcggca gaaaggnt
<210> 410
<211> 415
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (307)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (347)
<223> n equals a,t,g, or c
<400> 410
tgaataccta agatttctgt cttggggttt ttggtgcatg cagttgatta cttcttattt 60
ttcttaccaa ttgtgaatgt tggtgtgaaa caattaatga agcttttgaa tcatccctat 120
tctgtgtttt atctagtcac ataaatggat taattactaa tttcagttga gaccttctaa 180
ttggttttta ctgaaacatt gagggaacac aaatttatgg gcttcctgat gatgattctt 240
ctaggcatca tgtcctatag tttgtcatcc ctgatgaatg taaaattaca ctgttcacaa 300
aggttingtc tcctttccac tgctattaat catggtcact ctccccnaaa tattatattt 360
tttctattaa aagaaaaaaa tggaaaaaaa ttacaaggca atggaaacta ttata
<210> 411
<211> 636
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (383)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (512)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (519)
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<223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (544)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (547)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (583)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (599)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
<222> (603)
 <223> n equals a,t,g, or c
<400> 411
gcagatcaga cgtggcgacc cgctgaattt aagcatatta gtcagcggag gagaagaaac 60
taaccaggat tccctcagta acggcgagtg aacagggaag agcccagcgc cgaatccccg 120
ccccqcqqcq qqqcqcqqqa catqtqqcqt acqqaaqacc cqctccccqq cqccqctcqt 180
ggggggccca agtccttctg atcgaggccc agcccgtgga cggtgtgagg ccggtagcgg 240
cccccggcgc gccgggcccg ggtcttcccg gagtcgggtt gcttgggaat gcagcccaaa 300
gcgggtggta aactccatct aaggctaaat ccccttgtaa atttaactgt tagtccaaag 360
aggaacagct ctttggacac tangaaaaaa ccttgtagag agagtaaaaa atttaacacc 420
catagtaggc ctaaaagcag ccaccaatta agaaagcgtt caagctcaac acccactacc 480
taaaaaatcc caaacatata actgaactcc tnacacccna ttggaccaat ctatcaccct 540
atanaanaac taatggtagt ataagtaaca tgaaaacatt ctncttcgca taagcctgng 600
tanattaaaa cacttgaact gaccattaac aggcca
                                                                   636
<210> 412
<211> 182
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (129)
<223> n equals a,t,g, or c
<220>
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<221> misc feature
<222> (166)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (169)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (170)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (172)
<223> n equals a,t,g, or c
<400> 412
ccattgattt ttatcaatag tcgtattcat acggatagtc ctggtattgt tccatcacat 60
tctgaggatg ctcttcgaac tcttcaaatt cttcttccat atatcacctt aaatagtgga 120
ttgcggtant aaagattgtg cctgtctttt aaccacatca ggctcngann gntctcgtga 180
<210> 413
<211> 387
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (157)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (253)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (317)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (323)
<223> n equals a,t,g, or c
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<220>

<222> (260)

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<221> misc feature
  <222> (349)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (351)
  <223> n equals a,t,g, or c
  <220>
  <221> misc feature
  <222> (364)
  <223> n equals a,t,g, or c
  <400> 413
 togacceacg cgtccgcca cgcgtccgcc aagaccaccc tcctttcatt tgctagaagg 60
 actcactaga ctcaggaaag ctgttaggct cacagttaca gtttattaca gtaaaaggac 120
 agagattaag atcagcaaag ggaggaggtg cacagcnacg ttccacgaca gatgaggcga 180
 cggcttccat ctgccctctc ccagtggagc catataggca gcacctgatt ctcacagcaa 240
 catgtgacaa canccaagaa gtactgccaa tactgccaac cagagcagct tcactcggag 300
 atctttgtgt tccaganttt ttngtttgtc ttggagacag ggtctgggnc ngtttgggca 360
 gacnaagagt acatggtgga gattcac
 <210> 414
 <211> 276
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc feature
 <222> (60)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (186)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (195)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (237)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (266)
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<400> 414
gcaaaggtcc atactggtta cttggtttca ttgccaccac ttagtggatg ttcagtttan 60
aaccattttg tctgctccct ctggaagcct tgcgcatagc ttactttgta attgttggag 120
aataactgct gaatttttag ctgttttgag ttgattcgca ccactgcacc acaactcact 180
atgaanacta tttancttat ttattatctt gtgaaaagta taccatgaaa attttgntca 240
tactgtattt atcaagtatn attaanagca ctagat
<210> 415
<211> 192
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (78)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (88)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (99)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (145)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (150)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (164)
<223> n equals a,t,g, or c
<221> misc feature
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<221> misc feature

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<222> (168)
 <223> n equals a,t,g, or c
 <400> 415
 aaaagattgg actaagacac tggccatacc actggacagg gttatgttaa cacctgaaat 60
 tgctgggtct tgagagancc caacgcantt ctgggagang gaccacattg gggggtaggt 120
 ccacgggctt ggtgatagaa ttatntctcn atcgacttct tgantgcnat atgaactgta 180
 acatttgctt ag
 <210> 416
 <211> 439
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc feature
 <222> (7)
 <223> n equals a,t,g, or c
<220>
 <221> misc feature
 <222> (9)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (64)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (406)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (417)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (421)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (431)
<223> n equals a,t,g, or c
<220>
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<222> (434)
<223> n equals a,t,g, or c
<400> 416
gcgagantnc gacagaaggg tacggctgcg agagacgaca gaagggtacg gctgcgagaa 60
gacnacagaa gggtacggct gcgagaagac gacagaaggg tacggctgcg agaagacgac 120
agaagggtac ggctgcgaga agacgacaga aggtacggct gcgagaagac gacagaagga 180
tacggctgcg agaagacgac agaagggaga atcttagttc aactttaaat ttgcccacag 240
aaccctctaa atccccttgt aaatttaact gttagtccaa agaggaacag ctctttggac 300
actaggaaaa aaccttgtag agagagtaaa aaatttaaca cccatagtag gcctaaaagc 360
agccaccaat taagaaagcg ttcaaagctc aacacccact acccanaaaa taaaaanaaa 420
naaaaacccg nggnccgct
<210> 417
<211> 155
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (9)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (84)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (122)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (123)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (143)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (153)
<223> n equals a,t,g, or c
<400> 417
gacatettnt tggtttttat tttgaaacaa tttttagget tgtteegggg gtetetgtge 60
tgcctgtact gtattgacct gttntatagg tgccttttta ttaaaaagaa aattcaaaaa 120
```

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annaaaaaaa aaattaataa aanaaaaaaa aanca
                                                                     155
 <210> 418
 <211> 291
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc feature
 <222> (285)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (286)
 <223> n equals a,t,g, or c
 <220>
 <221> misc feature
 <222> (288)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (289)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (291)
<223> n equals a,t,g, or c
<400> 418
gaaaaaagaa atccatatct taaagaaaca gctttcaagt gcctttctgc agtttttcag 60
gagcgcaaga tagatttgga ataggaataa gctctagttc ttaacaaccg acactcctac 120
aagatttaga aaaaagttta caacataatc tagtttacag aaaaatcttg tgctagaata 180
ctttttaaaa ggtattttga ataccattaa aactgctttt ttttttccag caagtatcca 240
accaacttgg ttctgcttca ataaatcttt ggaaaaacta atttnnanna n
<210> 419
<211> 340
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
```

		(315) (aa 6		e an	w of	: +ha	nat	1	1		:				
			.qua	.5 0.1	iy OI	. cne	: nat	.urai	.ly c	ccur	ring		ımıno	acı	as
	0> 4	-		. <b>.</b>	•		_								
1		. ASP	Trp	Pne 5		Trp	Tyr	Val	Lys 10		: Cys	Gly	Gly	Thr 15	
Arg	Ile	: Ile	Ser 20		Thr	Asn	Gly	Gly 25		Glu	Arg	Lys	Phe 30		Gly
Gly	Ser	Gly 35		Val	Ser	Glu	Arg 40		Met	Asp	Leu	Leu 45		Asp	Arg
Val	Lys 50		Glu	Arg	Pro	Val 55	Ile	туг	Ile	Asp	Gln 60		Arg	Glu	Asn
Val 65		Val	Glu	Thr	Leu 70		His	Glu	Met	<b>T</b> yr 75	Glu	Ala	Lys	Tyr	Val 80
Ile	Ser	Ala	Ile	Pro 85	Pro	Thr	Leu	Gly	Met 90	Lys	Ile	His	Phe	Asn 95	Pro
Pro	Leu	Pro	Met 100	Met	Arg	Asn	Gln	Met 105	Ile	Thr	Arg	Val	Pro 110	Leu	Gly
Ser	Val	Ile 115	Lys	Cys	Ile	Val	Туг 120	Tyr	Lys	Glu	Pro	Phe 125	Trp	Arg	Lys
Lys	Asp 130	Tyr	Cys	Gly	Thr	Met 135	Ile	Ile	Asp	Gly	Glu 140	Glu	Ala	Pro	Val
Ala 145	Туr	Thr	Leu	Asp	Asp 150	Thr	Lys	Pro	Glu	Gly 155	Asn	туг	Ala	Ala	Ile 160
Met	Gly	Phe	Ile	Leu 165	Ala	His	Lys	Ala	Arg 170	Lys	Leu	Ala	Arg	Leu 175	Thr
Lys	Glu	Glu	Arg 180	Leu	Lys	Lys	Leu	Cys 185	Glu	Leu	Tyr	Ala	Lys 190	Val	Leu
Gly	Ser	Leu 195	Glu	Ala	Leu	Glu	Pro 200	Val	His	туг	Glu	G1u 205	Lys	Asn	Trp
Cys	Glu 210	Glu	Gln	Tyr	Ser	Gly 215	Gly	Cys	Tyr	Thr	Thr 220	Туr	Phe	Pro	Pro
Gly 225	Ile	Leu	Thr	Gln	Туг 230	Gly	Arg	Val	Leu	Arg 235	Gln	Pro	Val	Asp	Arg 240
Ile	Tyr	Phe	Ala	Gly 245	Thr	Glu	Thr	Ala	Thr 250	His	Trp	Ser	Gly	Tyr 255	Met

Glu Gly Ala Val Glu Ala Gly Glu Arg Ala Ala Arg Glu Ile Leu His
260 265 270

Ala Met Gly Lys Ile Pro Glu Asp Glu Ile Trp Gln Ser Glu Pro Glu 275 280 285

Ser Val Asp Val Pro Ala Gln Pro Ile Thr Thr Thr Phe Leu Glu Arg
290 295 300

His Leu Pro Ser Val Pro Gly Leu Leu Arg Xaa Ile Gly Leu Thr Thr 305 310 315 320

Ile Phe Ser Ala Thr Ala Leu Gly Phe Leu Ala His Lys Arg Gly Leu 325 330 335

Leu Val Arg Val

<210> 420

<211> 111

<212> PRT

<213> Homo sapiens

<220>

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<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 420

Thr Arg Asp Leu Val Ser Phe Ile Ser Gly Ile Arg Leu Tyr Asn Leu 1 5 10 15

Met Leu Ser Val Leu Arg His Lys Arg Gln Asn Val Ala Tyr Phe Arg
20 25 30

Ile Cys Phe Phe Ile Glu Val Ser Gly Ile Leu Ser Lys Ile Val Xaa 35 40 45

Ser Arg His Cys Ser Leu Cys Ser Ser Gly Thr Ser Cys Pro Leu Leu 50 55 60

Ser Leu Gln Ala Thr Gly Asn Ala Ser Val Leu Val Ser Trp Arg Lys
65 70 75 80

Ile Thr Trp Gly Glu Gly Thr Ser Cys Gly Lys Ser Lys Cys Arg Tyr 85 90 95

Glu Met Arg Arg Leu Pro Gln Leu Lys Val Asp Lys Ser Ala Leu

WO 00/55173

## PCT/US00/05881

369

100

105

110

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<210> 421
<211> 61
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids
Xaa Ile Trp Cys Ile Ile Cys Lys Glu Ser Lys Met Met Ser Phe Pro
                 5
                                    10
Arg Gly Met Asn Leu Arg Asn Ala Phe Asp Gly Asp Val Ser Val Thr
                                25
Leu Cys Tyr Ser Gly Ser Ser Asn Asn Ser Lys Ala Asn Tyr Ser Lys
        35
                           40
Cys Lys Ile Phe Leu Phe Pro Arg Phe Thr Phe Val Trp
   50
<210> 422
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<211> 51

<212> PRT

<213> Homo sapiens

Thr His Ala Tyr Cys Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln Trp 5 10

Arg Ala Trp Met Gln Lys Ser His Lys Thr Arg Asn Gln His Arg Thr

Arg Gly Ser Cys Pro Arg Ala Asp Gly Ala Arg Arg Glu Val Leu Pro 40

Asp Lys Leu 50

<210> 423

<211> 246

<212> PRT
<213> Homo sapiens
•
<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids
delus
<220>
<221> SITE
<222> (101)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (117)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (147)
<223> Xaa equals any of the naturally occurring L-amino acids
any of the naturally occurring L-amino acids
<400> 423
Thr Arg Asn Asp Met Lys Ala Asp Cys Ile Leu Tyr Tyr Gly Phe Gl
1 5 10 15 15
13
Asp Ile Phe Arg Ile Ser Ser Met Val Val Met Glu Asn Val Gly Gl
20 25 30
Gln Lys Leu Tyr Glu Met Val Ser Tyr Cys Gln Asn Ile Ser Lys Cys
35 40 45
Arg how that the same of the s
Arg Arg Val Leu Met Ala Gln His Phe Asp Glu Val Trp Asn Ser Glu
55 60
Ala Cys Asn Lys Met Cyg Yan Arm C
Ala Cys Asn Lys Met Cys Xaa Asn Cys Cys Lys Asp Ser Ala Phe Glu
70 75 80
Arg Lys Asn Ile Thr Glu Tyr Cys Arg Asp Leu Ile Lys Ile Leu Lys
87 66
90 95
Gln Ala Glu Gly Xaa Gly Met Glu Lys Leu Thr Pro Ile Gly Asn Trp
105 110
Ile Asp Ser Trp Xaa Gly Lys Gly Ala Ala Lys Leu Arg Val Ala Gly
115 120 125
Val Val Ala Pro Thr Leu Pro Arg Glu Asp Leu Glu Lys Ile Ile Ala
130 135 140

<210> 424
<211> 109
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

Asp His Trp Pro Arg Pro Glu Trp Leu Pro Cys Thr Ser Trp Arg Arg

1 5 10 15

Ala Ser Cys Leu Asn His Val Asn Cys His His Leu Ala Thr Pro Ala 20 25 30

Pro Ala Ser Ala Leu Pro Pro Phe Pro Pro Ser Trp Ser Gly Gly Tyr
35 40 45

Arg Ser Leu Gly Pro Thr Leu Ala Pro Leu Ser Pro Ala Ser Val Cys 50 55 60

Leu Thr Val Phe Pro Pro Leu Pro Gln Leu Arg Cys Xaa Pro Gln Ala 65 70 75 80

Trp Cys Cys Leu Gly Gly Leu Gly Glu Gly Val Cys Gly Gly Gly Arg

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Arg Val Lys Thr Glu Ala Arg Cys Gln Asn Gly Leu Glu 100 105
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<210> 425

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 425

Gly Ser Glu Thr Xaa Lys Tyr Leu Val Glu Asp Lys Arg Leu Gly Leu 1 5 10 15

Tyr Thr Trp Leu Cys Thr Asp Leu Leu Ser His Ile Gly Asn His His 20 25 30

Thr Leu Gln Gly Ile Ser Phe Ile Cys Lys Met Gln Arg Leu Val Leu 35 40 45

Xaa Asn His Thr Asn Phe Phe Val Leu 50 55

<210> 426

<211> 99

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (96)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 426

Phe Gly Thr Ser Gly Asp Gly Gly Gly Ser Lys Met Ala Gln Ala Ile

1 5 10 15

Phe Glu Ala Leu Glu Gly Met Asp Asn Gln Thr Val Leu Ala Val Gln

20 25

Ser Leu Leu Asp Gly Gln Gly Ala Val Pro Asp Pro Thr Gly Gln Ser 35 40 45

Val Asn Ala Pro Pro Ala Ile Gln Pro Leu Asp Asp Glu Asp Val Phe 50 55 60

Leu Cys Gly Lys Cys Lys Lys Gln Phe Asn Ser Leu Pro Ala Phe Met 65 70 75 80

Thr His Lys Arg Glu Gln Cys Gln Gly Asn Ala Pro Ala Leu Ala Xaa 85 90 : 95

Val Ser Leu

<210> 427

<211> 55

<212> PRT

<213> Homo sapiens

<400> 427

Asn Ser Asn Ser Ser Ile Phe Ser Leu Val Ser Val Lys Cys Asp Lys
1 5 10 15

Ser Thr Tyr Phe Lys Leu Phe Ser Ala Leu Gly Tyr Ser Ser Asn Lys 20 25 30

Asn Thr Asn Leu Trp Val Phe Lys Lys Thr Trp Arg Ile Asn Ser Tyr 35 40 45

Phe Lys Arg Ser Lys Lys Lys 50 55

<210> 428

<211> 54

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 428

His Thr Leu Ser Asn Leu Glu Phe Ala Gln Lys Val Glu Pro Cys Asn

WO 00/55173 PCT/US00/05881

374

1 10 15 Asp His Val Arg Ala Lys Leu Ser Trp Ala Lys Lys Arg Asp Glu Asp 20 25 Asp Val Pro Thr Val Pro Ser Thr Xaa Gly Glu Glu Arg Leu Tyr Asn 40 Pro Phe Leu Arg Val Ala 50 <210> 429 <211> 39 <212> PRT <213> Homo sapiens <400> 429 Arg Gln Thr Lys Val Asn Leu Lys Glu Thr Arg Ser Phe Glu Ile Ile 10 Val Trp Gly Phe Tyr Lys Ser Asn Tyr Cys His Leu His Pro Asp Ser 25 Phe Lys Leu Leu Ile His Pro 35 <210> 430 <211> 133 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (81) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <223> Xaa equals any of the naturally occurring L-amino acids <400> 430 Ala Arg Ala Pro Arg Val Pro Pro Ala Pro His Thr Pro Ser Lys Met

Gly Lys Glu Lys Thr His Ile Asn Ile Val Val Ile Gly His Val Asp

. 25

Ser Gly Lys Ser Thr Thr Thr Gly His Leu Ile Tyr Lys Cys Gly Gly
35 40 45

Ile Asp Lys Arg Thr Ile Glu Lys Phe Glu Lys Glu Ala Ala Glu Met 50 55 60

Gly Lys Gly Ser Phe Lys Tyr Ala Trp Val Leu Asp Lys Leu Lys Ala 65 70 75 80

Xaa Val Ser Ala Xaa Ile Thr Ile Asp Ile Ser Leu Trp Lys Phe Glu 85 90 95

Thr Thr Lys Tyr Tyr Ile Thr Ile Ile Asp Ala Pro Gly His Arg Asp 100 105 110

Phe Ile Lys Asn Met Ile Thr Gly Thr Ser Gln Ala Asp Cys Ala Val 115 120 125

Leu Ile Val Ala Ala 130

<210> 431

<211> 1,90

<212> PRT

<213> Homo sapiens

<400> 431

Leu Cys Trp Ala Arg Pro Leu Pro Ser Gly Pro Val Leu Leu Ala Ala 1 5 10 15

Asn Lys Asp Ser Ser Trp Cys Pro Thr Cys Leu Val His Cys Cys Val 20 25 30

Asn Pro Gly Gly Ser Gly His Arg Arg Gln Pro Arg Pro Arg Val Gln
35 40 45

Glu Lys Cys Ser Leu Glu Ala Arg Thr Thr Ala Ser His Trp Gly Arg
50 55 60

Arg Gly Pro Arg Thr Thr Ser Ala Ser Tyr Leu Pro Ala Ser Ala Arg
65 70 75 80

Gly Pro Arg Asp Ala Val Leu Phe Gln Pro Pro Ala Leu Gly Arg Gly
85 90 95

His Ala Ser Arg Ile Gln Gly Ala Gly Gly Leu Ser Thr Ala Arg Thr 100 105 110

Cys Leu Leu Ala Ala Ala Ala Val Gly Glu His Gly Gly Cys Gln Arg 115 120 125

Leu Leu Trp Lys Val Ala Ala Ser Glu Met Ala Gly Ala Ala Gly Val 130 135 140

Arg Leu His Thr Ala Gln Val Ser Ser Gly Arg Leu Ser Trp Gly Gly 145 150 155 160

Ser Ser Ser Ala Glu Gly Trp Trp Gly Val Gln Ser Val Ile Leu Gly 165 170 175

Ala Val Cys Pro Thr Pro Ala Trp Gly Pro His Phe Arg Arg 180 185 190

<210> 432

<211> 310

<212> PRT

<213> Homo sapiens

<400> 432

Gly Pro His Gly Asn Gly Glu Val Arg Trp Pro Leu Pro Pro Pro 1 5 10 15

Pro Arg Phe Val Ala Arg Arg Lys Met Ala Asp Leu Glu Glu Gln Leu 20 25 30

Ser Asp Glu Glu Lys Val Arg Ile Ala Ala Lys Phe Ile Ile His Ala 35 40 45

Pro Pro Gly Glu Phe Asn Glu Val Phe Asn Asp Val Arg Leu Leu Leu 50 55 60

Asn Asn Asp Asn Leu Leu Arg Glu Gly Ala Ala His Ala Phe Ala Gln
65 70 75 80

Tyr Asn Leu Asp Gln Phe Thr Pro Val Lys Ile Glu Gly Tyr Glu Asp

Gln Val Leu Ile Thr Glu His Gly Asp Leu Gly Asn Gly Lys Phe Leu 100 105 110

Asp Pro Lys Asn Arg Ile Cys Phe Lys Phe Asp His Leu Arg Lys Glu 115 120 125

Ala Thr Asp Pro Arg Pro Cys Glu Val Glu Asn Ala Val Glu Ser Trp 130 135 140

Arg Thr Ser Val Glu Thr Ala Leu Arg Ala Tyr Val Lys Glu His Tyr

145					150					155					160
Pro	Asn	Gly	Val	Cys 165	Thr	Val	Tyr	Gly	Lys 170	Lys	Ile	Asp	Gly	Gln 175	Gln
Thr	Ile	Ile	Ala 180	Cys	Ile	Glu	Ser	His 185	Gln	Phe	Gln	Ala	Lys 190	Asn	Phe
Trp	Asn	Gly 195	Arg	Trp	Arg	Ser	Glu 200	Trp	Lys	Phe	Thr	Ile 205	Thr	Pro	Ser
	Thr 210	Gln	Val	Val	Gly	11e 215	Leu	Lys	Ile	Gln	Val 220	His	Туг	Tyr	Glu
Asp 225	Gly	Asn	Val	Gln	Leu 230	Val	Ser	His	Lys	Asp 235	Ile	Gln	Asp	Ser	Leu 240
Thr	Val	Ser	Asn	Glu 245	Val	Gln	Thr		Lys 250	Glu	Phe	lle	Lys	11e 255	Val
Glu	Ala	Ala	Glu 260	Asn	Glu	Tyr	Gln	Thr 265	Ala.	Ile	Ser	Glu	Asn 270	Tyr	Gln
Thr	Met	Ser 275	Asp	Thr	Thr	Pḥe	Lys 280	Ala	Leu	Arg	Arg	Gln 285	Leu	Pro	Val
Thr :	Arg 290	Thr	Lys	Ile	Asp	Trp 295	Asn	Lys	Ile	Leu	Ser 300	Tyr	Lys	Ile	Gly
Lys (	Glu	Met	Gln	Asn	Ala 310										
<210	> 43	3													
<211															
<212: <213:													•		
\21J	- 110	5	apre	:113					•						
<220	>														
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<2222	•	•	<b>.</b>	_	_										
<223	> xa	a eq	luais	any	ot	the	natu	rall	y oc	curr	ing	L-an	ino	acid	ls
<220>	>														
<221	> SI	TE													
<222>		•	_												
<223>	> Xa	a eq	uals	any	of	the	natu	rall	у ос	curr	ing	L-an	ino	acid	s
<400>		_													
Gln S	Ser	Cys	Thr	Ser	Gly	Ser	Ser	Lys	Pro	Asn	Ser	Pro	Ser	Ile	Ser

	1			!	5				10	)				15	5
Pre	o Se	r Il	e Let 20		r Ası	Th	r Glu	His 25		s Arg	g Gly	y Pro	Glu 30		l Thr
Se	r Gl	n Gl	y Val	Glr	Th:	: Se	r Ser 40		Ala	a Cys	Lys	61r 45		Lys	Asp
Ası	5 Lys		ı Glu	Lys	. Lys	Asp 55		Ala	a Glu	Glr	va] 60		, Lys	Ser	Thr
Let 65		n Pro	Asn	Ala	Lys 70		ı Phe	Asn	Pro	Arg 75		Phe	Ser	Glm	Pro 80
Lys	Pro	Ser	Thr	Thr 85		Thr	Ser	Pro	Arg 90		Gln	Ala	Gln	Pro	
Pro	Ser	Met	: Val 100		His	Gln	Gln	Pro 105		Pro	Val	Tyr	Thr 110		Pro
Val	Cys	Phe 115	Ala	Pro	Asn	Met	Met 120		Pro	Val	Pro	Val 125		Pro	Gly
Val	Gln 130		Leu	Tyr	Pro	11e 135		Met	Thr	Pro	Met 140	Pro	Val	Asn	Gln
Ala 145	Lys	Thr	Tyr	Arg	Ala 150	Gly	Lys	Val	Pro	Asn 155	Met	Pro	Gln	Gln	Arg 160
Gln	Asp	Gln	His	His 165	Gln	Ser	Ala	Met	Met 170	His	Pro	Ala	Ser	Ala 175	Ala
Gly	Pro	Pro	Ile 180	Ala	Ala	Thr	Pro	Pro 185	Ala	Tyr	Ser	Thr	Gln 190	туг	Val
Ala	Tyr	Ser 195	Pro	Gln	Gln	Phe	Pro 200	Asn	Gln	Pro	Leu	Val 205	Gln	His	Val
Pro	His 210	Tyr	Gln	Ser	Gln	His 215	Pro	His	Val	Tyr	Ser 220	Pro	Val	Ile	Gln
Gly 225	Asn	Ala	Arg	Met	Met 230	Ala	Pro	Pro	Thr	His 235	Ala	Gln	Pro	Gly	Leu 240
Val	Ser	Ser	Ser	Ala 245	Thr	Gln	Tyr	Gly	Ala 250	His	Glu	Gln	Thr	His 255	Ala
Met	туг	Ala	Cys 260	Pro	Lys	Leu	Pro	Tyr 265	Asn	Lys	Glu	Thr	Ser 270	Pro	Ser
Phe	Tyr	Phe	Ala	Ile	Ser	Thr	Gly	Ser	Leu	Ala	Gln	Gln	Tyr	Xaa	Xaa

WO 00/55173

## PCT/US00/05881

379

275

280

285

Pro

<210> 434

<211> 147

<212> PRT

<213> Homo sapiens

<400> 434

Lys Val Thr Pro Asp Leu Lys Pro Thr Glu Ala Ser Ser Ser Ala Phe
1 5 10 15

Arg Leu Met Pro Ala Leu Gly Val Ser Val Ala Asp Gln Lys Gly Lys 20 25 30

Ser Thr Val Ala Ser Ser Glu Ala Lys Pro Ala Ala Thr Ile Arg Ile 35 40 . 45

Val Gln Gly Leu Gly Val Met Pro Pro Lys Ala Gly Gln Thr Ile Thr 50 55 60

Val Ala Thr His Ala Lys Gln Gly Ala Ser Val Ala Ser Gly Ser Gly 65 70 75 80

Thr Val His Thr Ser Ala Val Ser Leu Pro Ser Met Asn Ala Ala Val 85 90 95

Ser Lys Thr Val Ala Val Ala Ser Gly Ala Ala Arg Pro Pro Ser Ala 100 105 110

Ser Ala Gln Glu Pro Pro Pro Cys Gly Arg Ser Leu Ser Ala Pro Arg 115 120 125

Leu Cys Pro Arg Pro Arg Leu Gly Ser Cys Leu His Gly Ser Gln Phe 130 135 140

Pro Ser Leu 145

<210> 435

<211> 151

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (9) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (15) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (79) <223> Xaa equals any of the naturally occurring L-amino acids <400> 435 Gly Ser Gly Thr Lys Asp Pro Ser Xaa Cys Asn Thr Gln Thr Xaa Ala His Thr His Thr Gly Gly Glu Ile Ser Leu Phe Ser Met Ser Phe Phe Ser Trp Ala Glu Thr Gly Tyr Cys Pro Gly Gln Leu Pro Glu Lys His Arg Arg Glu Leu Arg Ser Ala Arg Pro Ser Ser Leu Ala Pro Gly Phe Gly Gly Pro Arg Thr Ala Asp Arg Gly Trp Ser Trp Arg Leu Xaa Ser Arg Ala Tyr Thr Trp Arg Asn Ala Pro Pro Ser Ser Pro Ser Leu Gln 90 Thr Trp Gly Trp Leu Gly Pro Glu Gly Cys Asp Glu Glu Lys Arg Ala 105 Ser Val Gly Met Arg Gln Glu Gly Ile Asp Phe Asp Cys Asp Leu Trp 120 Gly Phe Leu Pro Ala Leu Asp Asn Pro Ala Lys Asp Cys Phe Phe Leu . 135 Ser Leu Ala Arg Arg Gly Pro

<210> 436

<211> 180

<212> PRT

<213> Homo sapiens

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	2> ( 3> X		qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
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Ala 1	Pro	Ala	Ser	Pro 5	Val	Met	Pro	Pro	Gln 10	Thr	Gln	Ser	Pro	Gly 15	Gln
Pro	Ala	Gln	Pro 20	Ala	Pro	Met	Val	Pro 25	Leu	His	Gln	Lys	Gln 30	Ser	Arg
Ile	Thr	Pro 35	Ile	Gln	Lys	Pro	Arg 40	Gly	Xaa	Asp	Pro	Val 45	Glu	Ile	Leu
Gln	Glu 50	Arg	Glu	Туr	Arg	Leu 55	Gln	Ala	Arg	Ile	Ala 60	His	Arg	Ile	Gln
Glu 65	Leu	Glu	Asn	Leu	Pro 70	Gly	Ser	Leu	Ala	Gly 75	Asp	Leu	Arg	Thr	80 Lys
Ala	Thr	Ile	Glu	Leu 85	Lys	Ala	Leu	Arg	Leu 90	Leu	Asn	Phe	Gln	Arg 95	Gln
Leu	Arg	Gln	Glu 100	Val	Val	Val	Cys	Met 105		Arg	Asp	Thr	Ala 110	Leu	Glu
Thr	Ala	Leu 115	Asn	Ala	Lys	Ala	Туг 120	Lys	Arg	Xaa	Ser	Ala 125	Ser	Pro	Cys
Ala	Arg 130	Pro	Ala	Ser	Leu	Arg 135	Ser	Trp	Arg	Ser	Ser 140	Arg	Arg	Ser	Ser
Arg 145	Ser	Ala	Ser	Ala	Gly 150	Arg	Ser	Thr	Arg	Asn 155	Thr	Ser	Ile	Ala	Phe 160
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Lys	Ser	Arg	Ser 180												

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									-		•	, – .		- 40.	- 45
	00> 4														
Arg	Lys	ту1	Leu	ı Val	l Pro	Leu	ı Xaa	Lys	Lys	Lei	ı Tyı	Leu	Lvs	Trr	3 A 1 a
1	L			9	5				10		•		1.	15	
Leu	Glu	Glu	Tyr	Let	ı Asp	Glu	Phe	: Asp	Pro	Cys	His	Cys	Arc	Pro	Cvs
			20	)				25		-		•	30		
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Gln	Asn	Gly	Gly	Leu	Ala	Thr	Val	Glu	Gly	Thr	His	Cys	Leu	Cvs	His
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Cys	Lys	Pro	Tyr	Thr	Phe	Gly	Ala	Ala	Cys	Glu	Gln	Gly	Val	Leu	Val
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Gly	Asn	Gln	Ala	Gly	Gly	Val	Asp	Gly	Gly	Trp	Ser	Cys	Trp	Ser	Ser
65					70					75		_	-		80
_	_														
Trp	Ser	Pro	Cys	Val	Gln	Gly	Lys	Lys	Thr	Arg	Ser	Arg	Xaa	Cys	Xaa
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_	_														
Asn	Pro	Pro	Pro	Ser	Gly	Gly	Gly	Arg	Ser	Cys	Val	Gly	Glu	Thr	Thr
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Glu	Ser	Thr	Gln	Cys	Glu	Asp	Glu	Glu	Leu	Glu	His	Leu	Arg	Leu	Leu
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GLu	Pro	His	Cys	Phe	Pro	Leu	Ser	Leu	Val	Pro	Thr	Glu	Phe	Cys	Pro
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Ser 145		Pro	Ala	Leu	Lys 150		Gly	Phe	Val	Gln 155	Asp	Glu	Gly	Thr	Met 160
Phe	Pro	Val	Gly	Lys 165	Asn	Val	Val	Tyr	Xaa 170	Cys	Asn	Glu	Gly	Tyr 175	Ser
Leu	Ile	Gly	180		Val	Ala	Arg	Cys 185		Glu	Asp	Leu	Arg 190	Trp	Leu
Val	Gly	Glu 195		His	Cys	Gln	Lys 200	Ile	Ala	Cys	Val	Leu 205	Pro	Val	Leu
Met	Asp 210		Ile	Gln	Ser	His 215	Pro	Gln	Lys	Pro	Phe 220	Tyr	Thr	Val	Gly
Glu 225		Väl	Thr	Val	Ser 230	Cys	Ser	Gly	Gly	Met 235	Ser	Leu	Glu	Gly	Pro 240
Ser	Ala	Phe	Leu	Cys 245	Gly	Ser	Ser	Leu	Lys 250	Trp	Ser	Pro	Glu	Met 255	Lys
Asn	Ala	Arg	Cys 260	Val	Gln	Lys	Glu	Asn 265	Pro	Leu	Thr	Gln	Ala 270	Val	Pro
Lys	Cys	Gln <sup>-</sup> 275	Arg	Trp	Glu	Lys	Leu 280	Gln	Asn	Ser	Arg	Cys 285	Val	Cys	Lys
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Arg 305	Ser	Lys	Arg	Ile	Leu 310	Pro	Leu	Thr	Val	Cys 315	Lys	Met	His	Val	Leu 320
His	Cys	Gln	Gly	Arg 325	Asn	Tyr	Thr	Leu	Thr 330	Gly	Arg	Asp	Ser	Cys 335	Thr
Leu	Pro	Ala	Ser 340	Ala	Glu	Lys	Ala	Cys 345	Gly	Ala	Cys	Pro	Leu 350	Trp	Gly
Lys	Cys	Asp 355	Ala	Glu	Ser	Ser	Lys 360	Cys	Val	Суѕ	Arg	Glu 365	Ala	Ser	Glu
Cys	Glu 370	Glu	Glu	Gly	Phe	Ser 375	Ile	Cys	Val	Glu	Val 380	Asn	Gly	Lys	Glu
Gln 385	Thr	Met	Ser	Glu	Cys 390	Glu	Ala	Gly	Ala	Leu 395	Arg	Cys	Arg	_	Gln 400
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			equa]	LS ai	ny oi	the	e nat	ural	ly o	occui	rring	J L−a	mino	aci	ids
	0> 4														
Leu 1	ı Ile	≥ Arc	J Lev	Th:	: Ile	Gly	/ Lys	Ala	Gly 10		Leu	Glr	Туг		
				•	•				10	,				15	•
Xaa	Xaa	. Phe	Pro	Gly	Met	Glu	Ala	Phe	Leu	Glv	Ser	Aro	Ser	· G1v	Lev
			20	)				25		,	-		30		Dec
Trp	Ala	Gly	Gly	Pro	Ala	Pro	Gly	Gln	Phe	Tyr	Arg	Ile	Pro	Ser	Thr
		35					40			_	-	45			
	_	_													
Pro	Asp	Ser	Phe	Met	Asp	Pro	Ala	Ser	Ala	Leu	Tyr	Arg	Gly	Pro	Ile
	50					55					60				
Thr	Ara	Thr	Gln	n en	Dro	Mak	*** 1	mt.	-1		_	_			
65	9	1111	Gln	ASII	70	met	vai	Thr	GLŸ		Ser	Val	Leu	Gly	
					,,					75					80
Lys	Phe	Glu	Gly	Gly	Val	Val	Ile	Ala	Ala	Asn	Mo+	Lau	C1.		M
			•	85					90	nsp	HEL	nea	GIY	95	туг
														,,	
Gly	Ser	Leu	Ala	Arg	Phe	Arg	Asn	Ile	Ser	Arg	Ile	Met	Ara	Val	Aen
			100			_		105		,			110		
Asn	Ser	Thr	Met	Leu	Gly	Ala	Ser	Gly	Asp	Tyr	Ala	Asp	Phe	Gln	Tyr
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_	_														
Leu	Lys	Gln	Val	Leu	Gly	Gln	Met	Val	Ile	Asp	Glu	Glu	Leu	Leu	Gly
	130					135					140				-

Asp 145	Gly	His	Ser	Туг	Ser 150	Pro	Arg	Ala	Ile	His 155	Ser	Trp	Leu	Thr	Ar
Ala	Met	Туr	Ser	Arg 165	Arg	Ser	Lys	Met	Asn 170	Pro	Leu	Trp	Asn	Thr 175	Me
Val	Ile	Gly	Gly 180	туг	Ala	Asp	Gly	Glu 185	Ser	Phe	Leu	Gly	Туг 190	Val	Asj
Met	Leu	Gly 195	Val.	Ala	Tyr	Glu	Ala 200	Pro	Ser	Leu	Ala	Thr 205	Gly	Tyr	Gly
Ala	Туг 210	Leu	Ala	Gln	Pro	Leu 215	Leu	Arg	Glu	Val	Leu 220	Glu	Lys	Gln	Pro
Val 225	Leu	Ser	Gln	Thr	Glu 230	Ala	Arg	Asp	Leu	Val 235	Glu	Arg	Cys	Met	Arg 240
Val	Leu	туг	Tyr	Arg 245	Asp	Ala	Arg	Ser	Tyr 250	Asn	Arg	Phe	Gln	Ile 255	Ala
Chr	Val	Thr	Glu 260	Lys	Gly	Val	Glu	Ile 265	Glu	Gly	Pro	Leu	Ser 270		Glı
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<212> PRT

<213> Homo sapiens

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Asp Glu Leu Val Ala Ile Ile Ala Arg Thr Asp Leu Lys Lys Asn Arg 20 25. 30

Asp Tyr Pro Leu Ala Ser Lys Asp Ala Lys Lys Gln Leu Leu Cys Gly 35 40 45

Ala Ala Ile Gly Thr His Glu Asp Asp Lys Tyr Arg Leu Asp Leu Leu  $^{-}$  50 55 60

Ala Gln Ala Gly Val Asp Val Val Val Leu Asp Ser Ser Gln Gly Asn 65 70 75 80

Ser Ile Phe Gln Ile Asn Met Ile Lys Tyr Ile Lys Asp Lys Tyr Pro

	85	90	95
Asn Leu Gln	Val Ile Gly Gl	y Asn Val Val Thr Ala 105	a Ala Gln Ala Lys 110
Asn Leu Ile 115	Asp Ala Gly Va	l Asp Ala Leu Arg Val 120	. Gly Met Gly Ser 125
Gly Ser Ile 130	Cys Ile Thr Glr	n Glu Val Leu Ala Cys i 140	Gly Arg Pro Gln
Ala Thr Ala 145	Val Tyr Lys Val 150	. Ser Glu Tyr Ala Arg 155	Arg Phe Gly Val
Pro Val Ile	Ala Asp Gly Gly 165	Ile Gln Asn Val Gly 170	His Ile Ala Lys 175
Ala Leu Ala	Leu Gly Ala Pro 180	Gln Ser 185	
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	•	10 Pro Gln Ala Gly Ile A 25	15 sp Thr Asn Glu
Ile Ala Pro Le 35	eu Glu Pro Asp A	Ala Pro Pro Asp Ala C	30 ys Glu Ala Ser 45
Phe Asp Ala Va 50	l Ser Thr Ile A 55	arg Gly Glu Leu Phe P 60	he Phe Lys Ala
Gly Phe Val Tr 65	p Arg Leu Arg G 70	ly Gly Gln Leu Gln P 75	co Gly Tyr Pro
		ln Gly Leu Pro Ser Pr 90	95
		is Ile Trp Phe Phe Gl 105	110
Tyr Trp Val Tyr 115	Asp Gly Glu Ly 12	s Pro Val Leu Gly Pr 0 12	

Thr Glu Leu Gly Leu Val Arg Phe Pro Val His Ala Ala Leu Val Trp 135 Gly Pro Glu Lys Asn Lys Ile Tyr Phe Phe Arg Gly Arg Asp Tyr Trp 150 155 Arg Phe His Pro Ser Thr Arg Arg Val Asp Ser Pro Val Pro Arg Arg 165 170 Pro Leu Thr Gly Glu Gly Cys Pro Leu Arg Ser Thr Leu Pro Ser Arg 180 Met Leu Met Ala Met Pro Thr Ser Cys Ala Ala Ala Ser Thr Gly Ser 195 200 Leu Thr Leu 210 <210> 441 <211> 80 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (40) <223> Xaa equals any of the naturally occurring L-amino acids <400> 441 Gly Gly Ala Gly Lys Leu Leu Ser Phe Thr His Ser Ala Pro Trp Ser Arg Leu Trp Ser Ser Leu Gly Lys Arg Val Thr Gly Glu Ser Gln Gly 20 25 Leu Glu Lys Leu Pro Gly Thr Xaa Asp Gly Leu Ala Ala Leu Thr Gln 40 Asp Pro Leu Pro Leu Pro Pro Pro Leu Cys Arg Asn Thr Gly Thr Pro 55 Arg Gly Lys Met Ser Phe Ser Arg Leu Gln Phe Ser Pro Arg Lys Leu 70

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Met	Met 50	His	Glu	His	His	Lys 55	Glu	Thr	Glu	Туг	Lys 60	Asp	Lys	Ile	Pro
Leu 65	Leu	Gln	Gln	Pro	Lys 70	Arg	Glu	Glu	Glu	Glu 75	Val	Leu	Asp	Gln	Gly 80
Asp	Phe	Tyr	Ser	Leu 85	Leu	Ser	Lys	Leu	Leu 90	Gly	Glu	Arg	Glu	Asp 95	Val
Val	His	Val	His 100	Lys	Tyr	Asn	Pro	Thr 105	Glu	Lys	Ala	Glu	Ser 110	Glu	Ser
Asp	Leu	Val 115	Ala	Glu	Ile	Ala	Asn 120	Val	Val	Gln	Lys	Lys 125	Asp	Leu	Gly
Arg	ser 130	Asp	Ala	Arg	Glu	Gly 135	Ala	Glu	His		Arg 140	Gly	Asn	Ala	Ile
Leu 145	Val	Arg	Asp	Arg	Ile 150	His	Lys	Phe	His	Arg 155	Leu	Val	Ser	Thr	Leu 160
Arg	Pro	Pro	Glu	Ser 165	Arg	Val	Phe	Ser	Leu 170	Gln	Gln	Pro	Pro	Pro 175	Gly
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His 225	Val	Trp	Asp	Gly	Asn 230	Ser	Phe	Asp	Ser	Lys 235	Phe	Val	Tyr	Gln	Gln 240
Ile	Gly	Leu	Gly	Pro 245	Ile	Glu	Glu	Asp	Thr 250	Ile	Leu	Val	Ile	Asp 255	Pro
Asn	Asn	Ala	Ala 260	Val	Leu	Gln	Ser	Ser 265	Gly	Lys	Asn	Lėu	Phe 270	Tyr	Leu
Pro	His	Gly 275	Leu	Ser	Ile	Asp	Lys 280	Asp	Gly	Asn	Tyr	Trp 285	Val	Thr	Asp
7a 1	Δla	Tan	u ( c	C1-	tr = 1	Dh.	T	<b>7</b>		D			•	-1	-1

	290	)				295					300				
Pro 305		. Leu	Ile	Leu	Gly 310		Ser	Met	Gln	Pro 315		Ser	Asp	Gln	Asn 320
His	Phe	Cys	Gln	Pro 325		Asp	Val	Ala	Val 330		Pro	Gly	Thr	Gly 335	Ala
Ile	Tyr	Val	Ser 340		Gly	туг	Cys	Asn 345	Ser	Arg	Ile	Val	Gln 350	Phe	Ser
Pro	Ser	Gly 355	Lys	Phe	Ile	Thr	Gln 360		Gly	Glu	Glu	Ser 365	Ser	Gly	Ser
Ser	Pro 370		Pro	Gly	Gln	Phe 375	Thr	Val	Pro	His	Ser 380	Leu	Ala	Leu	Val
Pro 385		Leu	Gly	Gln	Leu 390	Cys	Val	Ala	Asp	Arg 395	Glu	Asn	Gly	Arg	Ile 400
Gln	Cys	Phe	Lys	Thr 405	Asp	Thr	Lys	Glu	Phe 410	Val	Arg	Glu	Ile	Lys 415	His
Ser	Ser	Phe	Gly 420	Arg	Asn	Val	Phe	Ala 425	Ile	Ser	туг	Ile	Pro 430	Gly	Leu
Leu	Phe	Ala 435	Val	Asn	Gly	Lys	Pro 440	His	Phe	Gly	Asp	Gln 445	Glu	Pro	Val
	450		Val			455					460				
165			Arg		470					475					480
			Thr	485					490					495	
			Thr 500					505				•	510		
		515	Leu				520					525			
	530		Cys			535					540				
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Xaa

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Arg Leu Ser Val Pro Pro Leu Val Glu Val Met Arg Gly Lys Ser Val
Ile Leu Asp Cys Thr Pro Thr Gly Thr His Asp His Tyr Met Leu Glu
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                             . 75
Trp Phe Leu Thr Asp Arg Ser Gly Ala Arg Pro Arg Leu Ala Ser Ala
Glu Met Gln Gly Ser Glu Leu Gln Val Thr Met His Asp Thr Arg Gly
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Leu Asp Arg Lys Asp Lys Phe Ser Phe Asp Leu Gly Lys Gly Glu Val

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Pro 65		Lys	Ile	Pro	Pro 70		Ala	Thr	Leu	Val 75		Glu	Val	Glu	Leu 80
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Ile	Arg	Arg	Ile 100		Thr	Arg	Gly	Glu 105		Туг	Ala	Lys	Pro 110	Asn	Glu
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Ser	Glu 210	Glu	Lys	Leu	Glu	Gln 215	Ser	Thr	Ile	Val	Lys 220	Glu	Arg	Gly	Thr
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Lys	Ile	Val	Ser	Trp 245	Leu	Glu	туг	Glu	Ser 250	Ser	Phe	Ser	Asn	G1u 255	Glu
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Arg	Gly	Glu	Ala	His	Leu	Ala	Val	Asn	Asp	Phe	Glu	Leu	Ala	Arg	Ala

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Ti	ır	G1	n L	eu A	1a 40	Val	Cys	s Gl	ln (	Gln	Ar 34	g I 5	le	Arq	g Aı	g G	ln	Le:		la	Arg
G1	u	Ly	s Ly 35	/s L 55	eu	Tyr	Ala	a As	in 1	1et 860	Ph	e G	lu	Arq	j Le		la 65	Gl	ı Gl	.u	Glu
As	n	Ly:	s Al	a L	ys i	Ala	Glu	37	a S 5	er	Sei	r G	ly	Asp	ні 38		ro	Thi	. As	p	Thr
G1 38	u 5	Met	. Ly	s G	lu (	Glu	Gln 390	Ly	s S	er	Ası	n Tì	hr	Ala 395		y S	er	Glr	se		Gln 400
Va	1 (	Glu	Th	r G		11a 105															
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Tyr	T	yr 50	Glu	Gl	7 G1	у т	yr 1	Phe 55	Ly	s A	la	Arg	g L	eu	Lys 60			ro	Ile	A:	sp
Tyr 65	Pı	ro	Tyr	Sez	Pr	O P	ro 1 70	Ala	Pho	e A	rg	Ph∈		eu 75	Thr	Lys	, M	et	Trp		is 30
Pro	As	sn.	Ile	Туг	G1 8	u T	hr (	Sly	Ası	y ç	al	Cys 90	1	le :	Ser	Ile	L	eu .	His 95	Pr	co
Pro	Va	1 /	Asp	Asp 100	Pr	o G:	ln S	Ser	Gly	7 G	lu :	Leu	Pı	ro s	Ser	Glu		rg ' 10	Trp	As	in
Pro	Th	r (	31n 115	Asn	Va.	l Ar	g T	hr	Ile 120	Le Le	eu 1	Leu	Se	er V	/al	Ile 125	Se	er 1	Leu	Le	e <b>u</b>

Asn Glu Pro Asn Thr Phe Ser Pro Ala Asn Val Asp Ala Ser Val Met 135 140 Tyr Arg Lys Trp Lys Glu Ser Lys Gly Lys Asp Arg Glu Tyr Thr Asp 150 155 Ile Ile Arg Lys Gln Val Leu Gly Thr Arg Trp Thr Arg Val Asn Gly 165 170 Val Lys Val Pro Thr Thr Leu Ala Glu Tyr Cys Val Lys Thr Lys Ala 185 Pro Ala Pro Asp Glu Gly Ser Asp Leu Phe Tyr Asp Asp Tyr Tyr Glu 195 200 Asp Gly Glu Val Glu Glu Ala Asp Ser Cys Phe Gly Asp Asp Glu 215 220 Asp Asp Ser Gly Thr Glu Glu Ser 230 <210> 447 <211> 356 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (12) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (53) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (191) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (263) <223> Xaa equals any of the naturally occurring L-amino acids Cys Ser Pro Pro Pro Pro Ala Ala Ala Ala Xaa Ala Ala Ala Ala

	1					5				:	10				1	5
Al	a M	et	Al	a G1 2	n Ty :0	r Ly	s G	ly A		la Se 25	er Gl	u Al	a Gl	y Ar 3		a Met
Hi	s Le	eu	Me 3	t Ly 5	s Ly	's Ar	g G		/s G] 10	ln Ar	g Gl	u Gl	n Me		u Gl	n Met
Ly	s G	Ln 50	Arc	g Il	e Xa	a Gl	u G]	lu As 55	n Il	.e Me	et Ly	s Sei 60		n Ile	e As	p Lys
Ly 6	s Pt 5	ıe	Sei	r Al	a Hi	s Ty 7	r As O	p Al	a Va	1 G1	u Al 7		ı Let	ı Lys	s Se	r Ser 80
					8	5				9	0				9.9	
				100	J				10	5				110	•	Lys
			115					12	0				125			Lys
	13	U					13	5				140				Glu
143	ı					150	1				155					160
					165	i				170	)	Lys			175	
				180					185	•		Asp		190		
		Ţ	.95					200				Trp	205			
	210						215					Phe 220				
Gly 225	Ser	G	ly	His	Arg	Arg 230	Thr	Val	Lys	Met	Arg 235	Lys	Gly	Asn	Thr	Met 240
					245					250		Arg			255	
Glu	Leu	A	rg	Ser 260	Ala	Gly	Xaa	Glu	Gln 265	Leu	Met	Tyr		Lys 270	Glu	Asp
Leu	Ile	11	le :	Pro	His	His	His	Ser	Phe	Tvr	Asp	Phe	Tle	Val	<b>ጥ</b> ክ <del>፦</del>	T 110

WO 00/55173 PCT/US00/05881

397

275 280 285

Ala Arg Gly Lys Ser Gly Pro Leu Phe Asn Phe Asp Val His Asp Asp 290 295 300

Val Arg Leu Leu Ser Asp Ala Thr Val Glu Lys Asp Glu Ser His Ala 305 310 315 320

Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile Phe 325 330 335

Pro Ala Ser Arg Trp Glu Pro Tyr Asp Pro Glu Lys Lys Trp Asp Lys 340 345 350

Tyr Thr Ile Arg 355

<210> 448

<211> 88

<212> PRT

<213> Homo sapiens

<400> 448

Lys Thr His Lys Met Cys Asp Ala Phe Val Gly Thr Trp Lys Leu Val 1 5 10 15

Ser Ser Glu Asn Phe Asp Asp Tyr Met Lys Glu Val Gly Val Gly Phe 20 25 30

Ala Thr Arg Lys Val Ala Gly Met Ala Lys Pro Asn Met Ile Ile Ser 35 40 45

Val Asn Gly Asp Val Ile Thr Ile Lys Ser Glu Ser Thr Phe Lys Asn 50 60

Thr Glu Ile Ser Phe Ile Leu Gly Gln Glu Phe Asp Glu Ala Leu Gln 65 70 75 80

Met Thr Gly Lys Ser Arg Ala Pro 85

<210> 449

<211> 171

<212> PRT

<213> Homo sapiens

<220>

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<22															
		132)	ı												
			qual	s an	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	ds
<40	0> 4	49													
Leu 1		. Leu	Val	Leu 5		Phe	· Val	Val	Trp		Lys	Arg	Arg	Asp 15	. Lys
Glu	Arg	Gln	Ala 20		Gln	Leu	Leu	Ile 25		Pro	Glu	Asp	Asp 30	Val	Arg
Asp	Asn	Ile 35	Leu	Lys	Tyr	Asp	Glu 40	Glu	Gly	Gly	Gly	Glu 45	Glu	Asp	Glr
Asp	туг 50		Leu	Ser	Gln	Leu 55	Gln	Gln	Pro	Asp	Thr 60	Val	Glu	Pro	Asp
Ala 65	Ile	Lys	Pro	Val	Gly 70	Ile	Xaa	Arg	Met	Asp 75	Glu	Arg	Pro	Ile	His 80
Ala	Glu	Pro	Gln	Туг 85	Pro	Val	Arg	Ser	Ala 90	Ala	Pro	His	Pro	Gly 95	Asp
Ile	Gly	Asp	Phe 100	Ile	Asn	Glu	Gly	Leu 105	Lys	Ala	Ala	Asp	Asn 110	Asp	Pro
Thr	Ala	Pro 115	Pro	туг	Asp	Ser	Leu 120	Leu	Val	Phe	Asp	Туг 125	Glu	Gly	Ser
Gly	Ser 130	Thr	Xaa	Gly	Ser	Leu 135	Ser	Ser	Leu	Asn	Ser 140	Ser	Ser	Ser	Gly
Gly 145	Glu	Gln	Asp	Tyr	Asp 150	Tyr	Leu	Asn	Asp	Trp 155	Gly	Pro	Arg	Phe	Lys 160
Lys	Leu	Ala	Asp	Met	Tyr	Gly	Gly	Gly	Asp	Asp					

<210> 450

<211> 34

<212> PRT

<213> Homo sapiens

<400> 450

. 399

Lys Val Lys Ala Cys Cys Lys Asp Ile Phe Phe Leu Leu Glu Gly  $1 \ 5 \ 10 \ 15$ 

Asn Thr Lys Arg Lys Ile Ser Phe Phe His Gly Ala Phe Asp Asn Phe
20 25 30

Ser Leu

<210> 451

<211> 148

<212> PRT

<213> Homo sapiens

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<222> (89)

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<400> 451

Arg Thr Leu His Pro Ala Thr Gly Pro Arg Ala Arg Pro Pro Arg Gly  $1 \ 5 \ 10 \ 15$ 

Trp Arg Arg Leu Cys Ala Gln Gly Pro Ala Pro Asp Trp Asp Pro . 20 25 30

Gly Val Pro Pro Gly Leu Ala Ser Cys Gly Xaa Thr Val Trp Leu His

Phe Ser Asp Pro Ser Leu Gly Arg Lys Val Lys Glu Thr Gly Pro Ala 50 55 60

Ser Ala Phe Gly Leu Trp Phe Leu Asp Arg Val Leu Ser Pro Ser Pro 65 70 75 80

Pro Ser Ser Pro Asn Leu Ser His Xaa Arg Pro Leu Pro Ala Ala Pro 85 90 95

Ser Leu Leu Gly Ile Gly Ser Pro Glu Pro Pro Ser Pro Glu Pro Pro 100 105 110

Thr Pro Leu Pro Gly Pro Cys Gly Cys Trp Ala Ser His Leu Lys Glu 115 120 125

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Gly Lys Val Val Gln Pro Glu Pro Val Glu Gln Cys Pro Val Trp Pro
                            135
   Pro Lys Pro Lys
   145
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   <211> 83
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Asp Ser His Arg Pro Arg Ala Met Arg Ala Leu Trp Val Leu Gly Leu
                                      10
Ser Cys Xaa Leu Leu Thr Phe Gly Ser Val Arg Xaa Asp Asp Glu Val
             20
                                 25
Asp Val Asp Gly Thr Val Glu Glu Asp Leu Gly Lys Ser Arg Glu Gly
Ser Arg Thr Asp Asp Glu Val Val Gln Arg Glu Glu Glu Ala Ile Xaa
                         55
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Val Gly Trp Ile Lys Cys Ile Pro Asn Lys Arg Thr Xaa Glu Xaa Lys 70 75 Ser Arg Lys <210> 453 <211> 240 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (234) <223> Xaa equals any of the naturally occurring L-amino acids Gly Trp Leu Pro Cys Gly Ser Ser Val Val Pro Ala Thr Pro Gly Ser 10 Pro Pro Ser Arg Phe Trp Leu Leu Pro Ala Met Ala Leu Arg Val Leu 25 Leu Leu Thr Ala Leu Thr Leu Cys His Gly Phe Asn Leu Asp Thr Glu Asn Ala Met Thr Phe Gln Glu Asn Ala Arg Gly Phe Gly Gln Ser Val 55 Val Gln Leu Gln Gly Ser Arg Val Val Val Gly Ala Pro Gln Glu Ile . 70 Val Ala Ala Asn Gln Arg Gly Ser Leu Tyr Gln Cys Asp Tyr Ser Thr Gly Ser Cys Glu Pro Ile His Leu Gln Val Pro Val Glu Ala Val Asn 105 Met Ser Leu Gly Leu Ser Leu Ala Ala Thr Thr Ser Pro Pro Gln Leu 120 Leu Ala Cys Gly Pro Thr Val His Gln Thr Cys Ser Glu Asn Thr Tyr 130 135 Val Lys Gly Leu Cys Phe Leu Phe Gly Ser Asn Leu Arg Gln Gln Pro

Gln Lys Phe Pro Glu Ala Leu Arg Gly Cys Pro Gln Glu Asp Ser Asp

Ile Ala Phe Leu Ile Asp Gly Ser Gly Ser Ile Ile Pro His Asp Phe 185

Arg Arg Met Lys Glu Phe Val Ser Thr Val Met Glu Gln Leu Lys Lys 200

Ser Lys Thr Leu Phe Ser Leu Met Gln Tyr Ser Glu Glu Phe Arg Ile 215

His Phe Thr Ser Lys Ser Ser Arg Thr Xaa Leu Thr Gln Asp His Trp 235

<210> 454

<211> 244

<212> PRT

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<400> 454

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Trp Lys Leu Pro Thr Leu Ala Lys Phe Ser Pro Tyr Leu Gly Gln Met

Ile Asn Leu Arg Arg Leu Leu Ser His Ile His Ala Ser Ser Tyr

WO 00/55173 PCT/US00/05881

403

45 Ile Ser Pro Glu Lys Glu Glu Gln Tyr Ile Ala Gln Phe Thr Ser Gln . 55 Phe Leu Ser Leu Gln Cys Leu Gln Leu Leu Tyr Val Asp Ser Leu Phe 70 Phe Leu Arg Gly Arg Leu Asp Gln Leu Leu Arg His Val Met Asn Pro Leu Glu Thr Leu Ser Ile Thr Asn Cys Arg Leu Ser Glu Gly Asp Val 105 Met His Leu Ser Gln Ser Pro Ser Val Ser Gln Leu Ser Val Leu Ser 120 Leu Ser Gly Val Met Leu Thr Asp Val Ser Pro Glu Pro Leu Gln Ala 135 Leu Leu Glu Arg Ala Ser Ala Thr Leu Gln Asp Leu Val Phe Asp Glu 150 155 Cys Gly Ile Thr Asp Asp Gln Leu Leu Ala Leu Leu Pro Ser Leu Ser 165 170 His Cys Ser Gln Leu Thr Thr Leu Ser Phe Tyr Gly Asn Ser Ile Ser Ile Ser Ala Leu Gln Ser Leu Leu Gln His Leu Ile Gly Xaa Ser Asn 200 Leu Thr His Val Leu Tyr Pro Val Pro Leu Glu Ser Tyr Glu Asp Ile His Gly Xaa Leu Xaa Leu Glu Arg Leu Leu Ser Ala Cys Gln Xaa Gln 235 240

<210> 455

<211> 195

<212> PRT

<213> Homo sapiens

Gly Val Ala Val

<400> 455

His Glu Gly Thr Gln Ser Phe Val Phe Gln Arg Glu Glu Ile Ala Gln
1 5 10 15

Leu	Ala	Arg	Gln 20	Tyr	Ala	Gly	Leu	Asp 25	His	Glu	Leu	Ala	Phe 30	Ser	Arg
Leu	Ile	Val 35	Glu	Leu	Arg	Arg	Leu 40	His	Pro	Gly	His	Val 45	Leu	Pro	Asp
Glu	Glu 50	Leu	Gln	Тгр	Val	Phe 55	Val	Asn	Ala	Gly	Gly 60	Trp	Met	Gly	Ala
Met 65	Cys	Leu	Leu	His	Ala 70	Ser	Leu	Ser	Glu	Tyr 75	Val	Leu	Leu	Phe	Gly 80
Thr	Ala	Leu	Gly	Ser 85	Arg	Gly	His	Ser	Gly 90	Arg	Tyr	Trp	Ala	Glu 95	Ile
Ser	Asp	Thr	Ile 100	Ile	Ser	Gly	Thr	Phe 105	His	Gln	Trp	Arg	Glu 110	Gly	Thr
Thr	Lys	Ser 115	Glu	Val	Phe	Tyr	Pro 120	Gly	Glu	Thr	Val	Val 125	His	Gly	Pro
Gly	Glu 130	Ala	Thr	Ala	Val	Glu 135	Trp	Gly	Pro	Asn	Thr 140	Trp	Met	Val	Glu
Tyr 145	Gly	Arg	Gly	Val	Ile 150	Pro	Ser	Thr	Leu	Ala 155	Phe	Ala	Leu	Ala	Asp 160
Thr	Val	Phe		Thr 165	Gln	Asp	Phe	Leu	Thr 170	Leu	Phe	Tyr	Thr	Leu 175	Arg
Ser	Tyr	Ala	Arg 180	Gly	Leu	Arg	Leu	Glu 185	Leu	Thr	Thr	Tyr	Leu 190	Phe	Gly
Gln .	•	Pro 195													

<210> 456 <211> 36 <212> PRT <213> Homo sapiens

<400> 456
Leu Val Thr Leu Leu His Ala Met Gln Ala Arg Asp Lys Thr Leu Gly

Leu Ala Thr Leu Cys Ile Gly Gly Gly Gln Gly Ile Ala Met Val Ile
20 25 30

Glu Arg Leu Asn 35

<210> 457

<211> 152

<212> PRT

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<220>

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<222> (114)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 457

Val Thr Ala Ala Ala Ser Val Arg Ala Leu Gln Val Thr Val Ala Gly

1 5 10 15

Leu Leu Leu Val Phe Phe Leu Phe Gly Ala Pro Leu Asp Ser Leu Pro 20 25 30

Ser Met Lys Ala Leu Ser Pro Val Arg Gly Cys Tyr Glu Ala Val Cys 35 40 45

Cys Leu Ser Glu Arg Ser Leu Ala Ile Ala Arg Gly Arg Gly Lys Gly
50 55 60

Pro Ala Ala Glu Glu Pro Leu Ser Leu Leu Asp Asp Met Asn His Cys 65 70 75 80

Tyr Ser Arg Leu Arg Xaa Leu Val Pro Gly Val Pro Arg Gly Thr Gln
85 90 95

Leu Ser Gln Val Glu Ile Leu Gln Arg Val Ile Asp Tyr Ile Leu Asp 100 105 110

Leu Xaa Val Val Leu Ala Glu Pro Ala Pro Gly Pro Pro Asp Gly Pro 115 120 125

His Leu Pro Ile Gln Thr Ala Glu Leu Ala Pro Glu Leu Val Ile Ser 130 135 140

Asn Asp Lys Arg Ser Phe Cys His 145 150 <210> 458 <211> 31

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Leu Leu Asn Asn Phe Ile Phe Leu Glu Thr His Tyr Leu Trp Ala Cys
Xaa Thr Trp Thr Ile Trp Pro Asn Xaa Leu Asp Lys Lys Gly Xaa
                                 25
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<220> <221> SITE <222> (130)

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Asp Pro Arg Val Arg Glu Thr Thr Val Lys Ala Arg Ala Arg Ser Gln
His Ala Gly Gly Pro Glu Leu Gly Leu Ser Gln Xaa Tyr Val Thr Pro
Arg Arg Pro Phe Glu Lys Ser Arg Leu Asp Gln Glu Leu Lys Leu Ile
Gly Glu Tyr Gly Leu Arg Asn Lys Arg Glu Val Trp Arg Val Lys Phe
    50
Thr Leu Ala Lys Ile Arg Lys Xaa Ala Arg Glu Leu Leu Thr Leu Asp
Glu Lys Asp Pro Arg Arg Leu Phe Glu Gly Asn Ala Leu Leu Arg Arg
                                     90
Leu Val Arg Ile Gly Val Leu Asp Glu Gly Lys Met Lys Leu Asp Tyr
                                105
Ile Leu Gly Leu Lys Met Arg Ile Leu Gly Glu Xaa Ser Ala Asp Pro
        115
                            120
                                                125
Gly Xaa Ser Ser Trp Gly Trp Pro Ile His Pro Pro Cys Pro Val Leu
                        135
Ile Arg Gln Ala Thr Gln Val Arg Lys Gln Val Val Asn
                    150
<210> 460
<211> 136
<212> PRT
<213> Homo sapiens
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   <400> 460
   Ile Trp Ala Pro Phe Pro His His Gln Gly Ser Gly Ser Gln Val Ser
                                       10
   Ser Tyr Gly Thr Gly Ala Leu Lys Ser His Ile Met Ala Ala Lys Ala
  Val Ala Asn Thr Met Arg Thr Ser Leu Gly Pro Asn Gly Leu Asp Lys
  Met Met Val Asp Lys Asp Gly Asp Val Thr Val Thr Asn Asp Gly Ala
                           55
  Thr Ile Leu Ser Met Met Asp Val Asp His Gln Ile Ala Lys Leu Met
  Val Glu Leu Ser Lys Ser Gln Asp Asp Glu Ile Gly Asp Gly Asp His
                                      90
 Gly Gly Cys Pro Gly Arg Arg Pro Ala Gly Arg Arg Pro Ser Ser
                                 105
 Cys Trp Thr Ala Ala Phe Xaa Arg Ser Gly Ser Pro Thr Val Thr Ser
                             120
 Arg Xaa Pro Ala Leu Ala Xaa Glu
     130
 <210> 461
<211> 390
<212> PRT
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<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (375) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (382) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (383) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (386) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (387) <223> Xaa equals any of the naturally occurring L-amino acids <400> 461 Cys Gly Asn Trp Trp Val Pro Arg Ala Gly Xaa Asn Trp Xaa Arg Gly Ser Arg Phe Leu Phe Val Asp Arg Cys Asp Arg His Leu Thr Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu Val Glu 40 Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile Gln Asp Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys Gln Leu 65 70 75 Glu Asp Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln Lys Glu Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Gly Met Gln Ile Phe Val Lys 100 105 Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu Val Glu Pro Ser Asp Thr 115 120 125

Ile	e Gl 13	lu As 10	in Va	al L	ys A]	la L <sub>i</sub>	ys I 35	le G	ln A	sp I	Lys (	Glu 140	Gly	Ile	Pro	Pro
		n Gl			13	U				1	.55					160
		u Se:			-				1	70					175	
		g Lei		•				13	35					190		
		11e					20	U				2	205			
						21:	,				2:	20				
		Phe			230					23	5					240
		Ile		5					250	)				2	255	
Gly								265	•				2	70		
Leu (							280					28	35			
Gln A						293					300	)				
Gly L 305										315					3	20
Lys G									330			G1	y G	Ly Me 33		ln
le P	he V	/al I	ys :	Thr 1	Leu :	Chr (	Glv	T.ve	Th-	71.	m.	<b>.</b> .				

 Phe
 Val
 Lys
 Thr
 Leu
 Thr
 Gly
 Lys
 Thr
 Ile
 Thr
 Leu
 Thr
 Glu
 Asp
 Thr
 Ile
 Glu
 Asp
 Val
 Lys
 Ala
 Arg
 Ser
 Arg
 Gln
 Gly
 Arg

 His
 Pro
 Pro
 Asp
 Gln
 Gln
 Xaa
 Leu
 Ile
 Leu
 Leu
 Leu
 Gly
 Lys
 Xaa
 Xaa
 Lys

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Arg Arg Ala Ser Pro Val Tyr Leu Ala Ser Met Ser Gly Arg Gly Lys
                                25
                                                     30
Thr Gly Gly Lys Ala Arg Ala Lys Ala Lys Ser Arg Ser Ser Arg Ala
                             40 .
Gly Leu Gln Phe Pro Val Gly Arg Val His Arg Leu Leu Arg Lys Gly
                         55 -
                                             60
His Tyr Ala Glu Arg Val Gly Ala Gly Xaa Pro Val Tyr Leu Ala Ala
                     70
Val Leu Glu Tyr Leu Thr Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala
                                     90
Ala Arg Asp Asn Lys Lys Thr Arg Ile Ile Pro Arg His Leu Gln Leu
                                105
Ala Ile Arg Asn Asp Glu Glu Leu Asn Lys Leu Leu Gly Gly Val Thr
                            120
```

Ile Ala Gln Gly Arg Arg Xaa Ala Gln His Pro Gly Arg Xaa Cys Cys 130 135 140
Pro Arg Arg Pro Ala Pro Pro Trp Gly Arg Xaa Pro Phe Gly Gly Gln 145 150 155 160
Glu Arg Ala Thr Lys Ala Ser Gln Gly Val Leu 165 170
<210> 463 <211> 433 <212> PRT <213> Homo sapiens
<400> 463
Arg Val Arg Ala Pro Pro Arg Pro Pro Leu Gly Pro Ser Arg Pro Ser 1 5 10 15
His His Val His Pro Leu Gln Leu Pro Gly Ile Arg Glu Val Thr Ile 20 25 30
Asn Gln Ser Leu Leu Ala Pro Leu Arg Leu Asp Ala Asp Pro Ser Leu 35 40 45
Gln Arg Val Arg Gln Glu Glu Ser Glu Gln Ile Lys Thr Leu Asn Asn 50 55 60
Lys Phe Ala Ser Phe Ile Asp Lys Val Arg Phe Leu Glu Gln Gln Asn 65 70 75 80
Lys Leu Leu Glu Thr Lys Trp Thr Leu Leu Gln Glu Gln Lys Ser Ala 85 90 95
Lys Ser Ser Arg Leu Pro Asp Ile Phe Glu Ala Gln Ile Ala Gly Leu . 100 105 110
Arg Gly Gln Leu Glu Ala Leu Gln Val Asp Gly Gly Arg Leu Glu Ala 115 120 125
Glu Leu Arg Ser Met Gln Asp Val Val Glu Asp Phe Lys Asn Lys Tyr 130 135 140
Glu Asp Glu Ile Asn Arg Arg Thr Ala Ala Glu Asn Glu Phe Val Val 145 150 155 160
Leu Lys Lys Asp Val Asp Ala Ala Tyr Met Ser Lys Val Glu Leu Glu 165 170 175

Ala	Lys	Val	Asp 180		Leu	Asn	Asp	Glu 185		Asn	Phe	Leu	Arg 190	Thr	Leu
Asn	Glu	Thr 195	Glu	Leu	Thr	Glu	Leu 200		Ser	Gln	Ile	Ser 205	Asp	Thr	Ser
Val	Val 210	Leu	Ser	Met	Asp	Asn 215	Ser	Arg	Ser	Leu	Asp 220	Leu	Asp	Gly	Ile
Ile 225		Glu	Val	Lys	Ala 230	Gln	Tyr	Glu	Glu	Met 235	Ala	Lys	Cys	Ser	Arg 240
Ala	Glu	Ala	Glu	Ala 245	Trp	Tyr	Gln	Thr	Lys 250	Phe	Glu	Thr	Leu	Gln 255	Ala
Gln	Ala	Gly	Lys 260	His	Gly	Asp	Asp	Leu 265	Arg	Asn	Thr	Arg	Asn 270	Glu	Ile
Ser	Glu	Met 275	Asn	Arg	Ala	Ile	Gln 280	Arg	Leu	Gln	Ala	Glu 285	Ile	Asp	Asn
Ile	Lys 290	Asn	Gln	Arg	Ala	Lys 295	Leu	Glu	Ala	Ala	Ile 300	Ala	Glu	Ala	Glu
Glu 305	Arg	Gly	Glu	Leu	Ala 310	Ļeu	Lys	Asp	Ala	Arg 315	Ala	Lys	Gln	Glu	Glu 320
Leu	Glu	Ala	Ala	Leu 325	Gln	Arg	Ala	Lys	Gln 330	Asp	Met	Ala	Arg	Gln 335	Leu
Arg	Glu	Tyr	Gln 340	Glu	Leu	Met	Ser	Val 345	Lys	Leu	Ala	Leu	Asp 350	Ile	Glu
Ile	Ala	Thr 355	Tyr	Arg	Lys	Leu	Leu 360	Glu	Gly	Glu	Glu	Ser 365	Arg	Leu	Ala
Gly	Asp 370	Gly	Val	Gly	Ala	Val 375	Asn	Ile	Ser	Val	Met 380	Asn	Ser	Thr	Gly
G1y 385	Ser	Ser	Ser	Gly	Gly 390	Gly	Ile	Gly	Leu	Thr 395	Leu	Gly	Gly	Thr	Met 400
Gly	Ser	Asn	Ala	Leu 405	Ser	Phe	Ser	Ser	Ser 410	Ala	Gly	Pro	Gly	Leu 415	Leu
Ļys	Ala	Tyr	Ser 420	Ile	Arg	Thr	Ala	Ser 425	Ala	Ser	Arg	Arg	Ser 430	Ala	Arg

Asp

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<210> 464
  <211> 121
  <212> PRT
  <213> Homo sapiens
  <220>
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<400> 464
Gly Ser Gly Cys Val Phe Ala Ile Leu Gly Arg Arg Cys Ser Arg Pro
Trp Arg Ile Trp Pro Gly Glu Pro Leu Gln Arg Ala Pro Pro Ala Ala
             20
                                25
Gly Thr Arg Trp Pro His Gly His Arg Ser Ser Pro Val Gly Thr Pro
                              40
Gly Xaa Ala Pro Asn Val Pro Ala Ile Trp Gln Gln Pro Leu Trp Xaa
     50
                         55
                                             60
Glu Tyr Ser Cys Glu Tyr Gly Ser Met Lys Phe Tyr Ala Leu Cys Gly
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WO 00/55173

## PCT/US00/05881

415

65

70

75

80

Phe Gly Gly Val Leu Ser Cys Gly Leu Thr His Thr Ala Val Pro 85 90 95

Leu Asp Leu Val Lys Cys Arg Met Gln Val Asp Pro Gln Xaa Tyr Lys 100 105 110

Gly Xaa Xaa Asn Xaa Ile Leu Ile Asn 115 120

<210> 465

<211> 68

<212> PRT

<213> Homo sapiens

<400> 465

Arg Ile Pro Ala Pro Ala Ser Ser Arg His Ser Gly Gly Arg Cys Ala
1 5 10 15

Ala Gly Pro Arg Gly Pro Pro Ala Thr Ala Ser Arg Ala Leu Arg Ala
20 25 30

Val His Arg Pro Leu Asp Ala Ala Arg Gly Arg Thr Gly Ser Thr Ser 35 40 45

His Leu Cys Ser Ser Ser Tyr Thr Ile Gly Cys Leu Leu Trp Phe Ser 50 55 60

Gln Lys Ala Met

65

<210> 466

<211> 224

<212> PRT

<213> Homo sapiens

<400> 466

Ala Thr Ile Leu Glu Arg Glu Ala Glu Gln Ser Arg Leu Gly Ala Thr
1 5 10 15

Glu Arg Ala Ala Ala Ala Met Asn Pro Glu Tyr Asp Tyr Leu Phe 20 25 30

Lys Leu Leu Leu Ile Gly Asp Ser Gly Val Gly Lys Ser Cys Leu Leu 35 40 45

Le	u Ar 5	g 10	Ph∈	e Al	a As	p As	T q	nr Ty 55	r Ti	nr Gl	u Se	r Ту 6		.e Se	r Th	r Ile
G1 6	y Va 5	1 1	Asp	Ph	e Ly	s Il 7	e Ar O	g Th	r Il	e Gl	u Le 7		p Gl	y Ly	s Th	r Il∈ 80
Ly	s Le	u (	Sln	Ile	e Tr	p As 5	рTh	r Al	a Gl	y Gl	n Gl	u Ar	g Ph	e Ar	g Th:	r Ile
Th	r Se	r s	Ser	Туг 100	Ty:	r Ar	g Gl	y Al	а Ні 10	s Gl <sub>j</sub> 5	y Ile	e Ile	⊇ Va:	l Val		r Asp
Va]	Thi	r A	sp 15	Gln	Glı	ı Seı	т Ту	r Ala 120	a Ası	n Val	l Lys	Glr	125		ı Glm	Glu
Ile	Asp 130	) )	rg	Tyr	Ala	Ser	Glu 135	Ası	ı Val	l Asn	Lys	Leu 140	Leu	ı Val	Gly	Asn
Lys 145	Ser	A	sp	Leu	Thr	Thr 150	Lys	Lys	Va]	. Val	Asp 155	Asn	Thr	Thr	Ala	Lys 160
Glu	Phe	A)	la	Asp	Ser 165	Leu	Gly	Ile	Pro	Phe 170	Leu	Glu	Thr	Ser	Ala 175	Lys
Asn	Ala	Th	ır .	Asn 180	Val	Glu	Gln	Ala	Phe 185	Met	Thr	Met	Ala	Ala 190	Glu	Ile
Lys	Lys	Ar 19	g 1	Met	Gly	Pro	Gly	Ala 200	Ala	Ser	Gly	Gly	Glu 205	Arg	Pro	Asn
Leu	Lys 210	Il	e A	Asp	Ser	Thr	Pro	Val	Lys	Pro	Ala	Gly	Gly	Gly	Cys	Cys

<210> 467

210

<211> 76

<212> PRT

<213> Homo sapiens

<400> 467

Ser Glu Ala Pro Gly Glu Ser Val Gly Thr Thr Pro Glu Ala Gln Met

215 220

Lys Thr Gly Pro Phe Ala Glu His Ser Asn Gln Leu Trp Asn Ile Ser 25

Ala Val Pro Ser Trp Ser Lys Val Asn Gln Gly Leu Ile Arg Met Tyr

35 . 40 45 Lys Ala Glu Cys Leu Glu Lys Phe Pro Val Ile Gln His Phe Lys Phe 55 Gly Ser Leu Leu Pro Ile His Pro Val Thr Ser Gly 70 <210> 468 <211> 111 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (31) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (35) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (47) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (49) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (78) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (97) <223> Xaa equals any of the naturally occurring L-amino acids Ser Leu Ala Arg Thr Gly Pro Arg Ser Leu Ala Arg Pro Cys Arg Arg Arg Pro Ala His Arg His Pro Leu Gln Pro Cys Pro Pro Gly Xaa Cys

Pro Arg Xaa Pro Thr Ala Asp Val Arg Arg Pro Arg His Arg Xaa Arg 35 40 45

Xaa Glu Leu His Ala His Asn Val Thr Ser Pro Pro Ala Pro Thr Ala 50 55 60

Trp Ala Ala Pro Ala Pro Gln His Gln Pro Gln Pro Leu Xaa Leu Val 65 70 75 80

Pro Gly Arg Arg Val Cys Ser Arg Leu Leu Pro Arg Cys Ala Cys Gly 85 90 95

Xaa Cys Cys Pro Gly Val Ala Leu Ala Gly Arg Ile Pro Trp Asn 100 105 110

<210> 469

<211> 459

<212> PRT

<213> Homo sapiens

<400> 469

Pro Arg Val Arg Pro Arg Val Arg Pro Arg Val Arg Leu Ser Ser Pro 1 5 10 15

Ser Pro Val Cys Leu Pro Pro Ala Ala Ala Thr Met Thr Thr Ser Ile  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Arg Gln Phe Thr Ser Ser Ser Ile Lys Gly Ser Ser Gly Leu Gly
35 40 45

Gly Gly Ser Ser Arg Thr Ser Cys Arg Leu Ser Gly Gly Leu Gly Ala 50 55 60

Gly Ser Cys Arg Leu Gly Ser Ala Gly Gly Leu Gly Ser Thr Leu Gly 65 70 75 80

Gly Ser Ser Tyr Ser Ser Cys Tyr Ser Phe Gly Ser Gly Gly Tyr 85 90 95

Gly Ser Ser Phe Gly Gly Val Asp Gly Leu Leu Ala Gly Gly Glu Lys

Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys

Val Arg Ala Leu Glu Glu Ala Asn Thr Glu Leu Glu Val Lys Ile Arg 130 135 140

Asp 145	Trp	Туг	Gln	Arg	Gln 150	Ala	Pro	Gly	Pro	Ala 155		Asp	туr	Ser	Gln 160
Tyr	Tyr	Arg	Thr	Ile 165	Glu	Glu	Leu	Gln	Asn 170		Ile	Leu	Thr	Ala 175	
Val	Asp	Asn	Ala 180		Ile	Leu	Leu	Gln 185	Ile	Asp	Asn	Ala	Arg 190	Leu	Ala
Ala	Asp	Asp 195	Phe	Arg	Thr	Lys	Phe 200	Glu	Thr	Glu	Gln	Ala 205	Leu	Arg	Leu
Ser	Val 210	Glu	Ala	Asp	Ile	Asn 215	Gly	Leu	Arg	Arg	Val 220	Leu	Asp	Glu	Leu
Thr 225	Ĺeu	Ala	Arg	Ala	Asp 230	Leu	Glu	Met	Gln	Ile 235	Glu	Asn	Leu	Lys	Glu 240
Glu	Leu	Ala	туг	Leu 245	Lys	Lys	Asn	His	Glu 250	Glu	Glu	Met	Asn	Ala 255	Leu
Arg	Gly	Gln	Val 260	Gly	Gly	Glu	Ile	Asn 265	Val	Glu	Met	Asp	Ala 270	Ala	Pro
Gly	Val	Asp 275	Leu	Ser	Arg	Ile	Leu 280	Asn	Glu	Met	Arg	Asp 285	Gln	Tyr	Glu
Lys	Met 290	Ala	Glu	Lys	Asn	Arg 295	Lys	Asp	Ala	Glu	Asp 300	Trp	Phe	Phe	Ser
Lys 305	Thr	Glu	Glu	Leu	Asn 310	Arg	Glu	Val	Ala	Thr 315	Asn	Ser	Glu	Leu	Val 320
Gln	Ser	Gly	Lys	Ser 325	Glu	Ile	Ser	Glu	Leu 330	Arg	Arg	Thr	Met	Gln 335	Ala
Leu	Glu	Ile	Glu 340	Leu	Gln	Ser	Gln	Leu 345	Ser	Met	Lys	Ala	Ser 350	Leu	Glu
Gly	Asn	Leu 355	Ala	Glu	Thr	Glu	Asn 360	Arg	Tyr	Cys	Val	Gln 365	Leu	Ser	Gln
Ile	Gln 370	Gly	Leu	Ile	Gly	Ser 375	Val	Glu	Glu	Gln	Leu 380	Ala	Gln	Leu	Arg
Cys 385	Glu	Met	Glu	Gln	Gln 390	Asn	Gln	Glu	Tyr	Lys 395	Ile	Leu	Leu	Asp	Val 400
Lys	Thr	Arg	Leu	Glu 405	Gln	Glu	Ile	Ala	Thr 410	Tyr	Arg	Arg	Leu	Leu 415	Glu

Gly Glu Asp Ala His Leu Thr Gln Tyr Lys Lys Glu Pro Val Thr Thr 420 425 430

Arg Gln Val Arg Thr Ile Val Glu Glu Val Gln Asp Gly Lys Val Ile
435 440 445

Ser Ser Arg Glu Gln Val His Gln Thr Thr Arg 450 455

<210> 470

<211> 158

<212> PRT

<213> Homo sapiens

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<222> (158)

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<400> 470

Pro Pro Pro Pro Pro Pro Pro Glu Leu Cys Ser Met Ala Ser Arg Arg 1 5 10 15

Met Glu Thr Lys Pro Val Ile Thr Cys Leu Lys Thr Leu Leu Ile Ile 20 25 30

Tyr Ser Phe Val Phe Trp Ile Thr Gly Val Ile Leu Leu Ala Val Gly
35 40 45

Val Trp Gly Lys Leu Thr Leu Gly Thr Tyr Ile Ser Leu Ile Ala Glu 50 60

Asn Ser Thr Asn Ala Pro Tyr Val Leu Ile Gly Thr Gly Thr Thr Ile 65 70 75 80

Val Val Phe Gly Leu Phe Gly Cys Phe Ala Thr Cys Arg Gly Ser Pro

Trp Met Leu Lys Leu Tyr Ala Met Phe Leu Ser Leu Val Phe Leu Ala 100 105 110

Glu Leu Val Ala Gly Ile Ser Gly Phe Val Phe Arg His Glu Ile Lys
115 120 125

Asp Thr Phe Leu Arg Thr Tyr Thr Asp Ala Met Gln Thr Tyr Asn Gly 130 135 140

Asn Asp Glu Arg Ser Arg Ala Val Asp His Val Gln Arg Xaa 145 150 155

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<210> 471
 <211> 59
 <212> PRT
 <213> Homo sapiens
 Val Leu Phe Phe Tyr Glu Cys Pro Asn Leu Cys Phe Pro Leu Pro Ser
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 Gln Thr Val Trp Pro Val Glu Ser Val Trp Phe Val Phe Ile Ser Pro
                                  25
 Ser Phe Leu Glu Gln Gly Leu Arg Pro Cys His Ile Ser Tyr Ala Leu
                              40
                                                  45
 His Pro Arg Leu Phe Trp Thr Leu Lys Val Asp
      50
                          55
 <210> 472
 <211> 320
 <212> PRT
 <213> Homo sapiens
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. <221> SITE
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 <400> 472
 Asp Pro Asp Glu Val Phe Pro Val Cys Leu Pro Leu Thr Gly Asp Ala
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- Gly Glu Asp Gly Gly Lys Met Leu His Leu Pro Glu Trp Pro Glu Gln 20 25 30
- Pro Pro Gly Gly Pro Ala Ala Leu Gln Val Arg Gly Ala Glu Asp Xaa 35 40 45
- . Xaa Leu Ser Phe Xaa Asp Cys Glu Ser Leu Gln Ala Val Phe Asp Pro 50 55 60
- Ala Ser Cys Pro His Met Leu Arg Ala Pro Ala Arg Val Leu Gly Glu 65 70 75 80
- Ala Val Leu Pro Phe Ser Pro Ala Leu Ala Glu Val Thr Leu Gly Ile 85 90 95
- Gly Arg Gly Ala Gly Ser Ser Trp Xaa Tyr His Glu Glu Glu Ala Asp
  100 105 110
- Ser Thr Ala Lys Ala Met Val Thr Glu Met Cys Leu Gly Glu Glu Asp
- Phe Gln Gln Leu Gln Ala Gln Glu Gly Val Ala Ile Thr Phe Cys Leu 130 135 140
- Lys Glu Phe Arg Gly Leu Leu Ser Phe Ala Glu Ser Ala Asn Leu Asn 145 150 155 160
- Leu Ser Ile His Phe Asp Ala Pro Gly Arg Pro Ala Ile Phe Thr Ile 165 170 175
- Lys Asp Ser Leu Leu Asp Gly His Phe Val Leu Ala Thr Leu Ser Asp 180 185 190
- Thr Asp Ser His Ser Gln Asp Leu Gly Ser Pro Glu Arg His Gln Pro
  195 200 205
- Val Pro Gln Leu Gln Ala His Ser Thr Pro His Pro Asp Asp Phe Ala
  210 215 220
- Asn Asp Asp Ile Asp Ser Tyr Met Ile Ala Met Glu Thr Thr Ile Gly
  225 230 235 240
- Asn Glu Gly Ser Arg Val Leu Pro Ser Ile Ser Leu Ser Pro Gly Pro 245 250 255
- Gln Pro Pro Lys Ser Pro Gly Pro His Ser Glu Glu Glu Asp Glu Ala 260 265 270
- Glu Pro Ser Thr Val Pro Gly Thr Pro Pro Pro Lys Lys Phe Arg Ser 275 280 285

Leu Phe Phe Gly Ser Ile Leu Ala Pro Val Arg Ser Pro Gln Gly Pro 290 295 300

Ser Leu Cys Trp Arg Lys Thr Val Arg Val Lys Ala Glu Pro Arg Thr 305 310 315 320

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<213> Homo sapiens

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<400> 473

Pro Pro Cys Ala Val Pro Gly Pro Arg Leu Ser Pro Lys Leu Arg Thr 1 5 10 15

Pro Ser Asn Ser Arg Glu Ser Xaa Ile Cys Val Ser Gly Arg Ala Glu 20 25 30

Ala Leu Thr Phe Arg His Gly Ala Glu Gly Ser Asp Arg Arg Gln
35 40 45

Arg Arg Glu Gly Val Leu Gly Pro Ala Leu Leu Cys Arg Pro Trp Glu 50 55 60

Val Leu Gly Ala His Glu Val Pro Ser Arg Asn Ile Phe Ser Glu Gln

•	65				70						75					80		
Tì	r I	le	Pr	O Pi	co Se	er A: 85	la L	ys T <u>y</u>	yr G		ly Ar 90	g His	5 Thi	val	. Thi	Met		
11	e P	ro	Gl	y As 10	sp G:	ly I)	le G	ly Pr	70 GI		u Me	t Lei	ı His	Val		Ser		
Va	1 P	he	Arg	g Hi	s A]	la Cy	's Va	al Pr 12	o Va	ıl As	p Ph	e Glu	Glu 125		His	Val		
Se	r S	er 30	Asr	ı Al	a As	p Gl	u G1 13	u As	p Il	e Ar	g Ası	n Ala 140		Met	Ala	Ile		
Ar 14	g A: 5	rg	Asn	Ar	g Va	l Al 15	a Le O	u Ly	s Gl	y As	n Ile 155		Thr	Asn	His	Asn 160		
Lei	u Pi	о.	Pro	Se	r Hi 16	s Ly 5	s Se	r Ar	g As	n As 17	n Ile O	: Leu	Arg	Thr	Ser 175	Leu		
Ası	p L∈	u	Tyr	Ala 180	a As )	n Va	l I1	e Hi:	5 Cy:	s Ly: 5	s Ser	Leu	Pro	Gly 190	Val	Val		
Thr	- Ar	g	His 195	Lys	S As	o Ile	≥ Asį	200	e Lei	ı Ile	e Val	Arg	Glu 205	Asn	Thr	Glu		
Gly	Gl 21	u 1	Tyr	Ser	: Se	Let	Glo 215	ı His	Glu	ı Sei	. Val	Ala 220	Gly	Val	Val	Glu		
Ser 225	Le	u 1	ւչ	Ile	: Ile	230	Lys	Ala	Lys	Ser	Leu 235	Arg	Ile	Ala	Glu	Tyr 240		
Ala	Pho	e I	ŗys	Leu	Ala 245	Gln	Glu	Ser	Gly	Arg 250	Lys	Lys	Val		Ala 255	Val		
His	Lys	s P	la	Asn 260	Ile	Met	Lys	Leu	Gly 265		Gly	Leu		Leu 270	Gln	Cys		
Cys	Arg	7 G 2	1u 75	Val	Ala	Ala	Arg	Туг 280	Pro	Gln	Xaa		Phe 285	Glu /	Asn	Met		
Ile	Val 290	. A	sp.	Asn	Thr	Thr	Met 295	Gln	Leu	Val	Xaa	Arg :	Pro (	Gln (	Gln 1	Phe		
Asp 305	Val	M	et '	Val	Met	Pro 310	Asn	Leu	Tyr	Gly	Asn 315	Ile '	Val 1	Lys (		Cys 320		
Leu	Arg	G.	ly 2	Kaa	Gly 325	Arg	Gly	Pro	Lys	Leu 330	Val							

<210> 474 <211> 30 <212> PRT <213> Homo sapiens <400> 474 Thr Pro Ile Ser Thr Lys Asn Thr Lys Ile Ser Gln Ala Arg Trp Arg 10 Ala His Val Val Pro Ala Thr Arg Glu Ala Asp Ala Glu Glu 25 <210> 475 <211> 124 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (110) <223> Xaa equals any of the naturally occurring L-amino acids <400> 475 Thr Gln Phe Ser Leu Ser Pro Val Glu Thr Ile Tyr Thr Ile Leu Cys Ile Asn Val Tyr Thr Leu Pro Ile Cys Ile His Ile Tyr Ile Val Tyr 20 25 Ile Leu Tyr Met Tyr Arg Cys Val Tyr Val His Ile Tyr Thr His Ala 40 His Asn Lys Ile Arg Cys Ser Leu Gln Ile Gln Met Leu Ile Thr Lys 55 Pro Asp Ala Thr Gln Thr Ala Ala Glu Glu Thr Arg Leu Asp Ser Cys 70

Asn Arg Ser Gln Lys Ile Lys Thr Ala Thr Cys Ser Asp Phe Gly His

Phe Cys Met Phe Ile Lys Asn Gly Phe Val Thr Arg Lys Xaa Arg Thr 100 105 110

120

90

85

Ser Val Ser Glu Lys Gly Arg Trp Gly Glu Pro Ser

<210> 476 <211> 64 <212> PRT

<213> Homo sapiens

<400> 476

Asn Gly Tyr Leu Val Phe Pro Arg Lys Asn Ser Phe Leu Leu Ile Phe 1 5 10 15

Gly Leu Phe Val Tyr Leu Glu Thr Asn Leu Asp Ser Leu Pro Leu Val 20 25 30

Asp Thr His Ser Lys Arg Thr Leu Leu Ile Lys Thr Val Glu Thr Arg
35 40 45

Asp Gly Gln Val Ile Asn Glu Thr Ser Gln His His Asp Asp Leu Glu 50 55 60

<210> 477

<211> 107

<212> PRT

<213> Homo sapiens

<400> 477

Val Leu Thr Val Asp Ala Arg Asn His Gly Asp Ser Pro His Ser Pro 1 5 10 15

Asp Met Ser Tyr Glu Ile Met Ser Gln Asp Leu Gln Asp Leu Leu Pro 20 25 30

Gln Leu Gly Leu Val Pro Cys Val Val Val Gly His Ser Met Gly Gly 35 40 45

Lys Thr Ala Met Leu Leu Ala Leu Gln Arg Pro Glu Leu Val Glu Arg 50 55 60

Leu Ile Ala Val Asp Ile Ser Pro Val Glu Ser Thr Gly Val Ser His 65 70 75 80

Phe Ala Thr Tyr Val Ala Ala Met Arg Ala Ile Asn Ile Ala Asp Arg 85 90 95

Leu Ala Pro Leu Pro Cys Pro Lys Thr Gly Gly 100 105

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<21	2> P	RT													
~21	3/ N	OIIIO	sapi	ens											
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<22	1> s	ITE													
		281)													
												_			
~22	32 X	aa e	quai	s an	y or	tne	nat	urai	TA O	ccur	ring	L-a	mīno	acı	ds
					•										
<40	0> 4	78													
Arg	Glu	Leu	Gly	Gly	Thr	Leu	Leu	Ser	Ala	Ile	Glu	Val	Glu	Glv	Ala
1			-	. 5					10					15	
				. •											
<del>.</del>	M-+	<b>61</b> -						_	_		_				
Lys	met	GIN			Lys	Thr	Phe		Leu	Glu	Lys	Gln	Asn	His	Thr
			20					25					30		
Pro	Arq	Lvs	His	His	Gln	His	His	His	Gln	Gln	Gln	His	His	Gln	Gln
	_	35					40					45		<b></b>	·
		33					40					45			
		_	_												
Gln	Gln	Gln	Gln	Pro	Pro	Pro	Pro	Pro	Ile	Pro	Ala	Asn	Gly	Gln	Gln
	50		~			55					60				
Ala	Ser	Ser	Gln	Aen	Glu	Glv	Leu	Thr	Tla	Acn	T an	Tuc	200	Dho	A
65			<b>U</b>	,,,,,,,			Leu	1111	110		Leu	Lys	ASII	rne	
65					70				•	75					80
Lys	Pro	Gly	Glu	Lys	Thr	Phe	Thr	Gln	Arg	Ser	Arg	Leu	Phe	Val	Gly
				85					90		•			95	-
	<b>.</b>	D			-1.	<b></b>						_	_		
ASN	Leu	Pro			116	Thr	Glu		GLu	Met	Arg	Lys		Phe	Glu
			100					105					110		
Lys	Tyr	Gly	Lys	Ala	Gly	Glu	Val	Phe	Ile	His	Lvs	Asp	Lvs	Glv	Phe
-	-	115	-		•		120				3 -	125		1	
		-13					120					123	•		
Sly	Phe	Ile	Arg	Leu	Glu	Thr	Arg	Thr	Leu	Ala	Glu	Ile	Ala	Lys	Val
	130					135					140				
:1,,	Len	Asn	Acn	Met	Dro	Leu	Arg	C111	T	Cln	Ton	7-0	1101	8	nh.
145	DC 4	тор		1100			ALG	GIY	гуз		Deu .	ALG	vai	ALG	
145					150					155					160
lla	Cys	His	Ser	Ala	Ser	Leu	Thr	Val	Arq	Asn	Leu	Pro	Gln	Tyr	Val
				165					170					175	
									- / 0					+13	
	_		_	_		_								•	
er	Asn	GLu		Leu	Glu	Glu	Ala	Phe	Ser	Val	Phe	Gly	Gln	Val	Glu
			180					185		•			190		
ırq	Ala	Val	Va)	Ile	Val	Asp	Asp	Arc	Glv	Ara	Pro	Ser	Glv	T.ve	Glv
,		195				٠٢		4	y	*** 9			y	~y 3	GLY
		177					200					205			

Ile Val Glu Phe Ser Gly Lys Pro Ala Ala Arg Lys Ala Leu Asp Arg 210 Cys Ser Glu Gly Ser Phe Leu Leu Thr Thr Phe Pro Arg Pro Val Thr 230 235 Val Glu Pro Met Asp Gln Leu Asp Asp Glu Glu Gly Leu Pro Glu Lys 245 250 Leu Val Ile Lys Asn Gln Gln Phe His Lys Glu Arg Glu Gln Pro Pro Arg Phe Ala Gln Pro Gly Ser Phe Xaa Val 275 <210> 479 <211> 289 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (206) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (215) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (218) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (285) <223> Xaa equals any of the naturally occurring L-amino acids

Thr Pro Ala Cys Leu Ala Arg Pro Ala Ala Gln Gly Phe Ser Ala Ala

Ala Val Pro Val Arg Asn Ser Arg Val Asp Pro Arg Val Arg Val Cys

Gly Pro Leu Ser Ala Pro Arg Gly Ser Arg Arg Pro Thr Val Pro Gly
20 25 30

		35					40					45			
Leu	Pro 50		Arg	Trp	Thr	Gly 55		Arg	Ala	Gly	Pro 60		Arg	Pro	Val
Pro 65		Gly	Thr	Pro	Ser 70	Arg	Ala	Ala	Asp	Pro 75		Gln	Gly	Glu	Met 80
Ser	Ala	Asp	Ala	Ala 85	Ala	Gly	Ala	Pro	Leu 90	Pro	Arg	Leu	Cys	Cys 95	Leu
Glu	Lys	Gly	Pro 100	Asn	Gly	Tyr	Gly	Phe 105	His	Leu	His	Gly	Glu 110	Lys	Gly
Lys	Leu	Gly 115		Tyr	Ile	Arg	Leu 120	Val	Glu	Pro	Gly	Ser 125	Pro	Ala	Glu
	130		·	Leu		135					140				
145				Glu	150					155					160
Ala	Leu	Asn	Ala	Val 165	Arg	Leu	Leu	Val	Val 170	Asp	Pro	Glu	Thr	Asp 175	Glu
			180	Leu				185				•	190		
		195		Gly			200					205			
	210			Glu		215					220				
25				Leu	230					235					240
er	Gly	Tyr	Gly	Phe 245	Asn	Leu	His	Ser	Asp 250	Lys	Ser	Lys	Pro	Gly 255	Gln
			260	Val				265					270		
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Ile

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 <212> PRT
 <213> Homo sapiens
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Lys Ser Trp Val Gly Pro Thr Leu His Phe His Arg Lys Ser Glu His
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Leu Val Gly Leu Lys Val Leu Cys Cys Phe Arg Leu
         35
                            40
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<213> Homo sapiens
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<220>
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Ser Ile Xaa His Xaa Arg Lys Xaa Xaa Xaa Thr Val Arg Ser Asp Ser
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Arg Val Asp Pro Arg Ser Asp Asp Phe Thr Pro Leu Glu Ile Leu Trp
20 25 30

Thr Phe Ser Ile Tyr Leu Glu Ser Val Ala Ile Leu Pro Gln Leu Phe 35 40 45

Met Val Ser Lys Thr Gly Glu Ala Glu Thr Ile Thr Ser His Tyr Leu 50 55 60

Phe Ala Leu Gly Val Tyr Arg Thr Leu Tyr Leu Phe Asn Trp Ile Trp 65 70 75 80

Arg Tyr His Phe Glu Gly Phe Phe Asp Leu Ile Ala Ile Val Ala Gly
85 90 95

Leu Val Gln Thr Val Leu Tyr Cys Asp Phe Phe Tyr Leu Tyr Ile Thr 100 105 110

Lys Val Leu Lys Gly Lys Lys Leu Ser Leu Pro Ala 115 120

<210> 482

<211> 131

<212> PRT

<213> Homo sapiens

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<222> (131)

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<400> 482

Cys Ser Ser Arg Gly Ala His His Ser His Cys Asp Arg Leu Pro His

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Ser	Pro	Trp	Pro 20	Gly	Leu	Arg	Glu	Val 25	Glu	Leu	Leu	Ala	Ser 30	Val	His
Thr	Glu	Gln 35	Met	Glu	Glu	Glu	Leu 40	Ala	Leu	Gly	Pro	Arg 45	Gly	Gln	Gly
Gly	Ala 50	Ser	Leu	Ala	Gly	Arg 55	Asp	Gly	Arg	Ser	Ala 60	Gly	Ala	Gly	Ser
Tyr 65	Gly	Ala	Leu	Ala	Asn 70	Ser	Ala	Trp	Gly	Gly 75	Pro	Arg	Lys	Val	Ala 80
Ser	Ala	Ser	Ala	Ala 85	Ala	Ser	Thr	Leu	Ser 90	Glu	Pro	Pro	Arg	Arg 95	Thr
Gln	Glu	Ser	Arg 100	Thr	Arg	Thr	Arg	Ala 105	Leu	Gly	Leu	Pro	Thr 110	Leu	Pro
Met	Glu	Lys 115	Leu	Ala	Ala	Ser	Asn 120	Arg	Xaa	Pro	Xaa	Gly 125	Leu	Xaa	Gly
Pro	Gly 130	Xaa													
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<22	0.														
	1> S:	ITE													
	2> (: 3> Xa		qual	s any	y of	the	nat	ural	ly o	ccur:	ring	L-aı	mino	aci	ds
<22		T M P													
	1> 5: 2> (:														
<22	3> X	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<40	0> 4	83													
Lys 1	Lys	Pro	Pro	Ile 5	Thr	His	Pro	Ser	Thr 10	Pro	Ala	Glu	Glu	Thr 15	Tyr
Asn	Leu	Gly	Arg 20	Gln	Val	Leu	Pro	Leu 25		Ala	Val	Thr	Tyr 30	Phe	Gln
Lys	Ser	Gly	Pro	Gly	Leu	Leu	Pro	Ala	Pro	Ala	Thr	Gln	Ser	Ala	Ser

		35					40					45			
Val	Ala 50	Gly	Thr	Leu	Gln	Asn 55	Ser	Leu	Cys	Ser	Gln 60	Val	Thr	Lys	Lys
Lys 65	Arg	Ala	Asn	Met	Leu 70	Val	Leu	Leu	Ala	Gly 75	Ile	Phe	Val	Val	His 80
Ile	Ala	Thr	Val	Ile 85	Met	Leu	Phe	Val	Ser 90	Thr	Ile	Ala	Asn	Val 95	Trp
Leu	Val	Ser	Asn 100	Thr	Val	Asp	Ala	Ser 105	Val	Ġly	Leu	Trp	Lys 110	Asn	Cys
Thr	Asn	Ile 115	Ser	Cys	Ser	Asp	Ser 120	Leu	Ser	Tyr	Ala	Ser 125	Glu	Asp	Ala
Leu	Lys 130	Thr	Val	Gln	Ala	Phe 135	Met	Ile	Leu	Ser	Ile 140	Ile	Phe	Cys	Val
Ile 145	Ala	Leu	Leu	Val	Phe 150	Val	Phe	Gln	Leu	Phe 155	Thr	Met	Glu	Lys	Gly 160
Asn	Arg	Phe	Phe	Leu 165	Ser	Gly	Xaa	Thr	Thr 170	Leu	Val	Cys	Xaa	Leu 175	Cys
Ile	Leu	Val	Gly 180	Cys	Pro	Ser	Thr	Leu 185	Val	Ile	Met	Arg	Ile 190	Val	Met
Glu	Arg	Ile 195	Cys	Thr	Thr	Ala	Ile 200	Pro	Thr	Ser	Trp	Ala 205	Gly	Ser	Ala
Ser	Ala 210	Ser	Ala	Ser	Ser	Ser 215	Ala	Phe	Ser	Ile	Trp 220	Ser			
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<211> 382 <212> PRT <213> Homo sapiens

<220> <221> SITE <222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (69) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (287) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (298) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (324) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (358) <223> Xaa equals any of the naturally occurring L-amino acids <400> 484 Thr Lys Leu Trp Thr Leu Val Ser Asn Pro Asp Thr Asp Ala Leu Ile 10 Cys Trp Ser Pro Ser Xaa Asn Ser Phe His Val Phe Asp Gln Gly Gln 25 Phe Ala Lys Glu Val Leu Pro Lys Tyr Phe Lys His Asn Asn Met Ala 40 Ser Phe Val Arg Gln Xaa Asn Met Tyr Gly Phe Arg Lys Val Val His 55 Ile Glu Gln Gly Xaa Leu Val Lys Pro Glu Arg Asp Asp Thr Glu Phe 65 70 75 Gln His Pro Cys Phe Leu Arg Gly Gln Glu Gln Leu Leu Glu Asn Ile Lys Arg Lys Val Thr Ser Val Ser Thr Leu Lys Ser Glu Asp Ile Lys 100 105 Ile Arg Gln Asp Ser Val Thr Lys Leu Leu Thr Asp Val Gln Leu Met 115 120

Lys	Gly 130		Gln	Glu	Cys	Met 135	Asp	Ser	Lys	Leu	Leu 140	Ala	Met	Lys	His
Glu 145		Glu	Ala	Leu	Trp 150	Arg	Glu	Val	Ala	Ser 155	Leu	Arg	Gln	Lys	His 160
Ala	Gln	Gln	Gln	Lys 165	Val	Val	Asn	Lys	Leu 170	Ile	Gln	Phe	Leu	Ile 175	Ser
Leu	Val	Gln	Ser 180	Asn	Arg	Ile	Leu	Gly 185	Val	Lys	Arg	Lys	Ile 190	Pro	Leu
Met	Leu	Asn 195	Asp	Ser	Gly	Ser	Ala 200	His	Ser	Met	Pro	Lys 205	Tyr	Ser	Arg
Gln	Phe 210	Ser	Leu	Glu	His	Val 215	His	Gly	Ser	Gly	Pro 220	туг	Ser	Ala	Pro
Ser 225	Pro	Ala	Tyr	Ser	Ser 230	Ser	Ser	Leu	Tyr	Ala 235	Pro	Asp	Ala	Val	Ala 240
Ser	Ser	Gly	Pro	Ile 245		Ser	Asp	Ile	Thr 250	Glu	Leu	Ala	Pro	Ala 255	Ser
Pro	Met	Ala	Ser. 260	Pro	Gly	Gly	Ser	Ile 265	Asp	Glu	Arg	Pro	Leu 270	Ser	Ser
Ser	Pro	Leu 275	Val	Arg	Val	Lys	Glu 280		Pro	Pro	Ser	Pro 285	Pro	Xaa	Ser
Pro	Arg 290	Val	Glu	Glu	Ala	Ser 295	Pro	Gly	Xaa	Pro	Ser 300	Ser	Val	Asp	Thr
Leu 305	Leu	Ser	Pro	Thr	Ala 310	Leu	Ile	Asp	Ser	Ile 315	Leu	Arg	Glu	Ser	Glu 320
Pro	Ala	Pro	Xaa	Ser 325	Val	Thr	Ala	Leu	Thr 330	Asp	Ala	Arg	Gly	His 335	Thr
Asp	Thr	Glu	Gly 340	Arg	Pro	Pro	Ser	Pro 345	Pro	Pro	Thr	Ser	Thr 350	Pro	Glu
Lys	Cys	Leu 355	Ser	Val	Xaa	Ala	Trp 360	Thr	Arg	Met	Ser	Ser 365	Val	Thr	Thr
Trp	Met 370	Leu	Trp	Thr	Pro	Thr 375	Trp	Ile	Thr	Cys	Arg 380	Pro	Cys		

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		PRT													
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		(39													
				als a	any c	of ti	ne na	atura	ally	occi	urrin	ng L-	-amin	10 ac	ids
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			al Al	aΔo	en Wa	1 61		77.5			_				
	1			u na	5	ı Gı	ту Бе	er Hi		/S AS	sp L∈	u Se	r Le		s Ilo
Pr	o G1	u II	Le Se	r I]	le Gl	n As	р Ме		r Al	a Gl	n Va	l Th	r Se		o Sei
G1	у Lу	s Th	r Hi 5	s Gl	u Al	a Gl	u Il 4	e Va O	1 G1	u Gl	y Gl	u As 4		s Th	г Туг
_													_		
Cy.	s II 5	e Ar O	g Ph	e Va	l Pr	5 Al	a G1 5	u Me	t Gl	y Th	r Hi		r Va	l Se	r Val
Lare	- T	<b>-</b> 7	- 61				_								
69	5 1y.	г гу	s GI	γ GI	n H1:	3 Va )	l Pro	o Gly	y Se	r Pr		e Gl	n Phe	€ Th:	r Val
Glv	, Pro	n T.e	. 61.			- 61									
,		J De	u (31)	8:	u G13 5	GI	y Ala	a His	5 Lys 90		l Ar	J Ala	a Gly	Gl <sub>3</sub>	Pro
Gly	Leu	ı Glı	1 Arç	Ala	a Glu	Ala	a Gly	Val	Pro	Ala	a Glu	Phe	Ser 110		Trp
Thr	Arg	Glu 115	Ala	Gly	y Ala	Gly	Gly	Leu	Ala	Ile	Ala	Val		Gly	Pro
Ser	Lys 130	Ala	Glu	Ile	: Ser	Phe 135	Glu	Asp	Arg	Lys	Asp		Ser	Cys	Gly
Val	Ala	ጥተታም	1751	*** 1	<b>61</b>		_								
145		171	vaı	val	Gln 150	GIU	Pro	Gly	Asp	Туг 155	Glu	Val	Ser	Val	Lys 160
Phe	Asn	Glu	Glu	His 165	Ile	Pro	Asp	Ser	Pro 170	Phe	Val	Val	Pro	Val 175	Ala
Ser	Pro	Ser	Gly 180	Asp	Ala	Arg	Arg	Leu 185	Thr	Val	Ser	Ser	Leu 190		Glu
Ser	Gly	Leu 195	Lys	Val	Asn	Gln	Pro 200	Ala	Ser	Phe	Ala	Val 205		Leu	Asn

Gly Ala Lys Gly Ala Ile Asp Ala Lys Val His Ser Pro Ser Gly Ala

215

Leu 225	Glu	Glu	Cys	Туr	Val 230	Thr	Glu	Ile	Asp	Gln 235	Asp	Lys	Tyr	Ala	Val 240
Arg	Phe	Ile	Pro	Arg 245	Glu	Asn	Gly	Val	Туг 250	Leu	Ile	Asp	Val	Lys 255	Phe
Asn-	Gly	Thr	His 260	Ile	Pro	Gly	Ser	Pro 265	Phe	Lys	Ile	Arg	Val 270	Gly	Glu
Pro	Gly	His 275	Gly	Gly	Asp	Pro	Gly 280	Leu	Val	Ser	Ala	Tyr 285	Gly	Ala	Gly
Leu	Glu 290	Gly	Gly	Val	Thr	Gly 295	Asn	Pro	Ala	Glu	Phe 300	Val	Val	Asn	Thr
Ser 305	Αşπ	Ala	Gly	Ala	Gly 310	Ala	Leu	Ser	Val	Thr 315	Ile	Asp	Gly	Pro	Ser 320
Lys	Val	Lys	Met	Asp 325	Cys	Gln	Glu	Cys	Pro 330	Glu	Gly	туг	Arg	Val 335	Thr
Tyr	Thr	Pro	Met 340	Ala	Pro	Gly	Ser	Tyr 345	Leu	Ile	Ser	Ile	Lys 350	Tyr	Gly
Gly	Pro	Туг 355	His	Ile	Gly	Gly	Ser 360	Pro	Phe	Lys	Ala	Lys 365	Val	Thr	Gly
Pro	Arg 370	Leu	Val	Ser	Asn	His 375	Ser	Leu	His	Glu	Thr 380	Ser	Ser	Val	Phe
Val 385	Asp	Ser	Leu	Thr	Lys 390	Ala	Thr	Cys	Ala	Pro 395	Gln	His	Gly	Xaa	Pro 400
Gly	Pro	Gly	Pro	Ala 405	Asp	Ala	Ser	Lys			Ala		Gly	Trp	Gly

<210> 486

<211> 46

<212> PRT

<213> Homo sapiens

<400> 486

Phe Val Thr Ser Gly Lys Ile Ser Leu Tyr Val Tyr Ile Leu Thr Ile  $1 \ 5 \ 10 \ 15$ 

WO 00/55173 PCT/US00/05881

438

Arg Leu Asp Thr Asn Lys Ala Thr Leu Leu Thr Ala Ser Gly Glu Leu 20 25 30

Ile Leu Phe Leu Ile Phe Phe Asn Lys Asp Ile Leu Arg Tyr 35 40 45

<210> 487

<211> 162

<212> PRT

<213> Homo sapiens

<400> 487

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Val Ser Thr Gly Leu Arg Thr Ala Val Gly Ser Pro Arg Leu Pro Pro
20 25 30

Thr Ala Leu Gly Ala Ala Tyr Gly Thr Ala Lys Ser Gly Thr Gly Ile 35 40 45

Ala Ala Met Ser Val Met Arg Pro Glu Gln Ile Met Lys Ser Ile Ile 50 55 60

Pro Val Val Met Ala Gly Ile Ile Ala Ile Tyr Gly Leu Val Val Ala 65 70 75 80

Val Leu Ile Ala Asn Ser Leu Asn Asp Asp Ile Ser Leu Tyr Lys Ser 85 90 95

Phe Leu Gln Leu Gly Ala Gly Leu Ser Val Gly Leu Ser Gly Leu Ala

Ala Gly Phe Ala Ile Gly Ile Val Gly Asp Ala Gly Val Arg Gly Thr
115 120 125

Ala Gln Gln Pro Arg Leu Phe Val Gly Met Ile Leu Ile Leu Ile Phe 130 135 140

Thr Lys

<210> 488

<211> 114

<212> PRT <213> Homo sapiens <220>

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<400> 488

Gln Ala Leu Arg Pro Gly Ser Phe Arg Gly Thr Gly Arg Lys Arg Glu

1 5 10 15

Arg Glu Arg Glu Arg Met Ser Leu Ser Asp Trp His Leu Ala Val Lys
20 25 30

Leu Ala Asp Gln Pro Leu Ala Pro Lys Ser Ile Leu Gln Leu Pro Glu 35 40 45

Ser Glu Leu Gly Glu Tyr Ser Leu Gly Gly Tyr Ser Ile Ser Phe Leu 50 60

Lys Gln Leu Ile Ala Gly Lys Leu Gln Glu Ser Val Pro Asp Pro Glu 65 70 75 80

Leu Ile Asp Leu Ile Tyr Cys Gly Arg Lys Leu Lys Asp Asp Xaa Thr  $^{\circ}$  85 90 95

Leu Thr Ser Thr Val Phe Asn Leu Ala Pro His Pro Cys Ser Xaa Glu 100 105 110

Xaa Leu

<210> 489

<211> 149

<212> PRT

<213> Homo sapiens

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  Ala Ser Arg Pro Pro Thr Ser Gly Arg Glu Gln Phe Trp Ala Arg Gly
 Leu Ala Ala Ala Asp Met Thr Lys Gly Leu Val Leu Gly Ile Tyr Ser
                               40
 Lys Asp Lys Glu Asp Asp Val Pro Gln Phe Thr Ser Ala Gly Glu Asn
 Phe Asp Lys Leu Val Ser Gly Lys Leu Arg Glu Ile Leu Asn Ile Ser
 Gly Pro Pro Leu Lys Ala Gly Lys Thr Arg Thr Phe Tyr Gly Leu His
 Glu Asp Phe Pro Ser Val Val Val Gly Leu Gly Arg Lys Ala Ala
Gly Val Asp Asp Gln Glu Asn Trp Xaa Glu Gly Lys Glu Asn Ile Arg
Val Ala Met Gln Arg Gly Ala Gly Arg Phe Gln Asp Leu Xaa Ile Ser
                        135
                                             140
Ser Val Glu Gly Gly
145
<210> 490
<211> 527
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<223> Xaa equals any of the naturally occurring L-amino acids

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Leu His Asp Ile Ile His Thr Glu Lys Ser Leu Thr Leu Val Phe Glu

				26	0				26	5				27	0	
ту	r Le	eu A 2	sp :75	Ly	s As	p Le	u Ly	's Gl 28		r Le	u As	p As <sub>l</sub>	p Cys		/ Ası	n Ile
11	e As	n M	et	His	s As	n Va	1 Ly 29		u Ph	e Le	u Ph	e Gl:		ı Let	ı Arç	g Gly
Le 30	u Al 5	а Т	уr	Суз	Hi:	31	g Xa O	a Ly	s Va	l Le	u Hi: 31		j Asp	Leu	Lys	Pro 320
Gl	n As	n L	eu	Leu	32!	e Ası	n Gl	u Ar	g Gly	7 G1:		ı Lys	Leu	ı Ala	Asp 335	Phe
Gl	y Le	u A	la	Arg 340	Ala	a Lys	s Se	r Ile	9 Pro		r Lys	Thr	Туг	Ser 350		Glu
Va]	l Va	1 T! 39	nr 55	Leu	Trp	Туі	Ar	g Pro 360		Asp	) Ile	e Leu	Leu 365		Ser	Thr
Asp	370	r Se D	er	Thr	Glm	Ile	375	Met	Trp	Gly	Val	. Gly 380		Ile	Phe	Tyr
Glu 385	Met	: Al	.a ʻ	Thr	Gly	Arg 390	Pro	Leu	Phe	Pro	Gly 395	Ser	Thr	Val	Glu	Glu 400
Gln	Leu	Hi	.s ]	Phe	Ile 405	Phe	Arg	, Ile	Leu	Gly 410		Pro	Thr	Glu	Glu 415	Thr
Trp	Pro	Gl	y 1	Ile 120	Leu	Ser	Asn	Glu	Glu 425	Phe	Lys	Thr	Tyr	Asn 430	Tyr	Pro
Lys	Tyr	Ar 43	g <i>I</i> 5	Ala	Glu	Ala	Leu	Leu 440	Ser	His	Ala	Pro	Arg 445	Leu	Asp	Ser
Asp	Gly 450	Al	a A	Asp	Leu	Leu	Thr 455	Lys	Leu	Leu	Gln	Phe 460	Glu	Gly	Arg	Asn
Arg 465	Ile	Se	r A	la	Glu	Asp 470	Ala	Met	Lys	His	Pro 475	Phe	Phe	Leu	Ser	Leu 480
Gly	Glu	Arq	j I	le	His 485	Lys	Leu	Pro	Asp	Thr 490	Thr	Ser	Ile		Ala 495	Leu
Lys	Glu	Ile	e G 5	1n 00	Leu	Gln	Lys	Glu	Ala 505	Ser	Leu	Àrg		Ser 510	Ser	Met
Pro	Asp	Ser 515	G	ly .	Arg	Pro	Ala	Phe 520	Arg	Val	Val	Asp	Thr	Glu :	Phe	

<210> 491 <211> 125 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (125) <223> Xaa equals any of the naturally occurring L-amino acids Cys Thr Arg Ala His Pro Lys Asn Leu Val Glu Lys Gly Ile Leu Thr Thr Glu Lys Gln Asn Phe Leu Leu Phe Asp Met Thr Thr His Pro Val 20 . 25 Thr Asn Thr Thr Glu Lys Gln Arg Leu Val Lys Lys Leu Gln Asp Ser 40 Val Leu Glu Arg Trp Val Asn Asp Pro Gln Arg Met Asp Lys Arg Thr Leu Ala Leu Leu Val Leu Ala His Ser Ser Asp Val Leu Glu Asn Val 70 Phe Ser Ser Leu Thr Asp Asp Lys Tyr Asp Val Ala Met Asn Arg Ala 90 Lys Asp Leu Val Glu Leu Asp Pro Glu Val Glu Gly Thr Lys Pro Ser 105 Ala Thr Glu Met Ile Trp Ala Val Leu Ala Ala Phe Xaa 115 120

<210> 492

<211> 53

<212> PRT

<213> Homo sapiens

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<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

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               20
                                   25
  Thr Val Glu Lys Leu Phe Phe Gln Trp Lys Ser Trp Val Gln Glu Met
                               40
                                                   45
  Xaa Gly Xaa Leu Lys
       50
  <210> 493
  <211> 82
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Arg	g His	s Asp	Gl <sub>3</sub>		Pro	Sei	: His	Ser 25		. Ar	Lei	ı Sei	Glr 30		Gly
Sei	c Val	Ser 39	Gln	Gly	Pro	туг	Ser 40		Ala	Pro	Pro	Leu 45		His	Thr
Pro	Ser 50	Ser	Asp	Phe	Gln	Pro 55		Tyr	Phe	Pro	X & & & & & & & & & & & & & & & & & & &		Туг	Gln	Pro
Leu 65	Pro	) Xaa	Xaạ	Gln	Ser 70		. Asp	Pro	Tyr	Ser 75		Val	Xaa	. Xaa	Pro 80
Tyr	Pro	•													
	0> 4														
	2> P														
			sapi	ens			•								
<40	0> 4	94													
Tyr 1	Lys	Asp	Trp	Leu 5	Thr	Lys	Met	Ser	Gly 10	Lys	His	Asp	Val	Gly 15	Ala
Tyr	Met	Leu	Met 20	туг	Lys	Gly	Ala	Asn 25	Arg	Thr	Glu	Thr	Val 30	Thr	Ser
Phe	Arg	Lys 35	Arg	Glu	Ser	Lys	Val 40	Pro	Ala	Asp	Leu	Leu 45	Lys	Arg	Ala
Phe	Val 50	Arg	Met	Ser	Thr	Ser 55	Pro	Glu	Ala	Phe	Leu 60	Ala	Leu	Arg	Ser
His 65	Phe	Ala	Ser	Ser	His 70	Ala	Leu	Ile	Cys	Ile 75	Ser	His	Trp	Ile	Leu 80
Gly	Ile	Gly	Asp	Arg 85	His	Leu	Asn	Asn	Phe 90	Met	Val	Ala	Met	Glu 95	Thr
Gly	Gly	Val	Ile 100	Gly	Ile	Asp	Phe	Gly 105	His	Ala	Phe	Gly	Ser 110	Ala	Thr

Gln Phe Leu Pro Val Pro Glu Leu Met Pro Phe Arg Leu Thr Arg Gln

125

120

Phe	130	Asn	Leu	Met	Leu	Pro 135		Lys	Glu	Thi	Gl <sub>3</sub>		ı Met	Tyr	Ser
Ile 145	Met	Val	His	Ala	Leu 150	Arg	Ala	Phe	Arg	Ser 155		Pro	Gly	Leu	Leu 160
Thr	Asn	Thr	Met	Asp 165	Val	Phe	Val	Lys	Glu 170		Ser	Phe	Asp	Trp	Lys
Asn	Phe	Glu	Gln 180	Lys	Met	Leu	Lys	Lys 185		Gly	Ser	Trp	11e	Gln	Glu
Ile	Asn	Val 195	Ala	Glu	Lys	Asn	Trp 200	Туг	Pro	Arg	Gln	Lys 205	Ile	Cys	Tyr
Ala	Lys 210	Arg	Lys	Leu	Ala	Gly 215	Ala	Asn	Pro	Ala	Val 220	Ile	Thr	Cys	Asp
Glu 225	Leu	Leu	Leu	Gly	His 230	Glu	Lys	Ala	Pro	Ala 235	Phe	Arg	Asp	Tyr	Val 240
Ala	Val	Ala	Arg	Gly 245	Ser	Lys	Asp	His	Asn 250	Ile	Arg	Ala	Gln	Glu 255	Pro
Glu	Ser	Gly	Leu 260	Ser	Glu	Glu	Thr	Gln 265	Val	Lys	Cys	Leu	Met 270	Asp	Gln
Ala	Thr	Asp 275	Pro	Asn	Ile		Gly 280	Arg	Thr	Trp	Glu	Gly 285	Trp	Glu	Pro
Trp	Met 290														
<210															
<211 <212															
<213		-	apie	ns											
<220:	>														
<221		ГE													
<222	> (1	48)													
<223	> Xaa	a equ	uals	any	of t	he r	natui	rall	y oc	curr	ing	L-am	ino a	acids	5
<400	× 499	5													
Cys (			lis F	ro I 5	eu P	ro (	Sly (	Sly 1	Pro A	Ala (	Cys :	Pro (	Cys 1	Leu <i>l</i> 15	Ala
Cys H	lis I	le 1	hr L	eu L	eu P	he G	ly A	rd I	ero 1	rp l	Leu :	Ile i	Lvs (	ilo t	/a l

			. 20					25					30	)	
Leu	Val	Val 35		Gln	Ala	Lys	Trp 40		Leu	Glu	Thr	Val		. Lys	Va]
Gln	11e 50	Thr	Leu	Asn	Cys	Ile 55	Gln	Glu	Val	His	Phe 60		Pro	Ile	· Val
Arg 65		Ser	Trp	Ser	Leu 70	Arg	Asp	Ala	Arg	.Leu 75	Glu	Ser	Asp	Туг	11e
Ile	Ile	Gln	Asn	Gly 85	Asn	Ser	Gln	Gly	Asn 90	Ala	Phe	Phe	His	Phe 95	
Arg	Phe	Phe	Tyr 100	Pro	His	Cys	Thr	Pro 105	Ser	Pro	Ser	Pro	Leu 110		Ile
Trp	Met	Ala 115	Ser	Gln	Lys	Leu	Gly 120	Pro	Ser	Pro	Pro	Cys 125	Leu	Gly	Gly
Gly	Gln 130	Ser	Pro	Leu	Thr	Ala 135	Glu	Ala	Ala	Leu	Leu 140	Ser	Ser	Ala	Val
Leu 145	Pro	Leu	Xaa	Lys	Cys 150	Leu	Gln	Arg	Val	Met 155	Ser				
<211 <212	0> 49 1> 25 2> PF B> Ho	1 T	apie	ens											
<222	> SI !> (4	2)				•									
			[uals	any	of	the	natu	rall	у ос	curr	ing	L-ar	nino	acio	is
	> 49 Glu		Leu	Arg 5	Ala	Gln	Glu	Ala	Pro 10	Gly	Gln	Ala	Glu	Pro 15	Pro
Ala	Ala	Ala	Glu 20	Val	Gln	Gly	Ala	Gly 25	Asn	Glu	Asn	Glu	Pro 30	Arg	Glu
Ala	Asp	Lys	Ser	His	Pro	Glu	Gln .	Arg	Xaa	Leu	Arg	Pro	Arg	Leu	Cys

40

55

50

Thr Met Lys Lys Gly Pro Ser Gly Tyr Gly Phe Asn Leu His Ser Asp

Lys 65	Ser	Lys	Pro	Gly	Gln 70	Phe	Ile	Arg	Ser	Val 75	Asp	Pro	Asp	Ser	Pr 8
Ala	Glu	Ala	Ser	Gly 85	Leu	Arg	Ala	Gln	Asp 90	Arg	Ile	Val	Glu	Val 95	As
Gly	Val	Cys	Met 100	Glu	Gly	Lys	Gln	His 105		Asp	Val	Val	Ser 110	Ala	11
Arg	Ala	Gly 115	Gly	Asp	Glu	Thr	Lys 120	Leu	Leu	Val	Val	Asp 125	Arg	Glu	Th
Asp	Glu 130	Phe	Phe	Lys	Lys	Cys 135	Arg	Val	Ile	Pro	Ser 140	Gln	Glu	His	Le
Asn 145	Gly	Pro	Leu	Pro	Val 150	Pro	Phe	Thr	Asn	Gly 155	Glu	Ile	Gln	Lys	G1:
Asn	Ser	Arg	Glu	Ala 165	Leu	Ala	Glu	Ala	Ala 170	Leu	Glu	Ser	Pro	Arg 175	Pr
Ala	Leu	Val	Arg 180	Ser	Ala	Ser	Ser	Asp 185	Thr	Ser	Glu	Glu	Leu 190	Asn	Se
Gln	Asp	Ser 195	Pro	Pro	Lys	Gln	Asp 200	Ser	Thr	Ala	Pro	Ser 205	Ser	Thr	Se
Ser	Ser 210	Asp	Pro	Ile	Leu	Asp 215	Phe	Asn	Ile	Ser	Leu 220	Ala	Met	Ala	Lys
Glu 225	Arg	Ala	His	Gln	Lys 230	Arg	Ser	Ser	Lys	Arg 235	Ala	Pro	Gln	Met	Asp 240
Trp	Ser	Lys		Asn 245	Glu	Leu	Phe	Ser	Asn 250	Leu					

<210> 497

<211> 48

<212> PRT

<213> Homo sapiens

<400> 497

Asn Gly Ala Glu Ala Val Ser Thr Glu Ala Lys Met Thr Ala Phe Pro  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Asp Trp Pro Trp Leu Phe His Thr Leu Cys Asp Pro Cys Pro Met Thr 20 25 30

Leu Trp Leu Thr Leu Pro Glu Ala Met Thr Thr Ala Ala Phe Cys His

40

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<210> 498
 <211> 373
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 <222> (337)
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 <220>
 <221> SITE
 <222> (372)
 <223> Xaa equals any of the naturally occurring L-amino acids
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                                      10
 Asp Ser Ala Gly Pro Trp Thr Met Ser Arg Ala Leu Arg Pro Pro Leu
              20
 Pro Pro Leu Cys Phe Phe Leu Leu Leu Ala Ala Ala Gly Ala Arg
                              40
 Ala Gly Gly Tyr Glu Thr Cys Pro Thr Val Gln Pro Asn Met Leu Asn
     50
                         55
                                              60
Val His Leu Leu Pro His Thr His Asp Asp Val Gly Trp Leu Lys Thr
                     70
Val Asp Gln Tyr Phe Tyr Gly Ile Lys Asn Asp Ile Gln His Ala Gly
                 85
                                     90
Val Gln Tyr Ile Leu Asp Ser Val Ile Ser Ala Leu Leu Ala Asp Pro
                                105
Thr Arg Arg Phe Ile Tyr Val Glu Ile Ala Phe Phe Ser Arg Trp Trp
                            120
His Gln Gln Thr Asn Ala Thr Gln Glu Val Val Arg Asp Leu Val Arg
                        135
                                             140
Gln Gly Arg Leu Glu Phe Ala Asn Gly Gly Trp Val Met Asn Asp Glu
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<210> 499 <211> 238 <212> PRT

<213> Homo sapiens

145		150		155	160
Ala Ala T	hr His Tyr 165	Gly Ala	Ile Val A	sp Gln Met Th	r Leu Gly Leu 175
Arg Phe L	eu Glu Asp 180	Thr Phe	Gly Asn A 185	sp Gly Arg Pro	Arg Val Ala 190
		•	200	rg Glu Gln Ala 205	
		413		ne Gly Arg Leu 220	
		230		u Met Glu Gln 235	240
	5		25		255
			265	n Leu Cys Trp	270
		21	80	o Arg Ser Pro 285	
		233		val Ala Thr	
	,	10		Thr Met Gly :	320
	223		330		335
			343	_	50
		u Pro Lei 360	u Gly Ala O	Glu Gln Gly G 365	ln Pro His
Leu Val Ser 370	Xaa Thr				

< 4 0 1	J> 4:	99													
Ala	Leu	Pro	Gly	Pro	Asp	Trp	His	Gly	Ala	Gly	Ala	Ala	Asp	Arg	Gly
1	5								10		15				

Pro Ala Ala Pro Pro Arg Pro Gly Pro Cys Ala Tyr Ala Ala His Gly

Arg Gly Ala Leu Ala Glu Ala Ala Arg Arg Cys Leu His Asp Ile Ala 35 40 45

Leu Ala His Arg Ala Ala Thr Ala Ala Arg Pro Pro Ala Pro Pro Pro 50 55 60

Ala Pro Gln Pro Pro Ser Pro Thr Pro Ser Pro Pro Arg Pro Thr Leu 65 70 75 80

Ala Arg Glu Asp Asn Glu Glu Asp Glu Asp Glu Pro Thr Glu Thr Glu 85 90 95

Thr Ser Gly Glu Gln Leu Gly Ile Ser Asp Asn Gly Gly Leu Phe Val

Met Asp Glu Asp Ala Thr Leu Gln Asp Leu Pro Pro Phe Cys Glu Ser 115 120 125

Asp Pro Glu Ser Thr Asp Asp Gly Ser Leu Ser Glu Glu Thr Pro Ala 130 135 140

Gly Pro Pro Thr Cys Ser Val Pro Pro Ala Ser Ala Leu Pro Thr Gln 145 150 155 160

Gln Tyr Ala Lys Ser Leu Pro Val Ser Val Pro Val Trp Gly Phe Lys  $\sim$  165 170 175

Glu Lys Arg Thr Glu Ala Arg Ser Ser Asp Glu Glu Asn Gly Pro Pro 180 185 190

Ser Ser Pro Asp Leu Asp Arg Ile Ala Ala Ser Met Arg Ala Leu Val

Leu Arg Glu Ala Glu Asp Thr Gln Val Phe Gly Asp Leu Pro Arg Pro 210 215 220

Arg Leu Asn Thr Ser Asp Phe Gln Lys Leu Lys Arg Lys Tyr 225 230 235

<210> 500

<211> 198

<212> PRT

Thr Asn His Gly Gly Asp 195

<213> Homo sapiens	
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<pre>&lt;400&gt; 500 Asn Ser Ala Glu Leu Ser Pro Gly Leu Cys Ser 1</pre>	r Pro Thr Pro Thr Glu 15
Ala Arg Ala Gly Asp Ala Gly Pro Ala Ala Arg 20 25	Ser Arg Lys Gln Asn 30
Pro Gln Ser Pro Pro Cys Cys Cys Val Asp Asp 35 40	Thr Trp Ala Gln Ala 45
Glu Val Gly Pro Val Thr Ser Cys Thr Gly Phe 50 55	60
Arg Thr Gly Gly Met Gly Ser Ala Cys Ile Lys 65 70 75	80
Leu Phe Leu Phe Asn Leu Ile Phe Phe Ile Leu 85 90	95
Gly Phe Gly Val Trp Ile Leu Ala Asp Lys Ser 100 105	110
Leu Gln Thr Ser Ser Ser Ser Leu Arg Met Gly 115 120	125
Gly Val Gly Ala Val Thr Met Leu Met Gly Phe 130 135	Leu Gly Cys Ile Gly 140
Ala Val Asn Glu Val Arg Cys Leu Leu Gly Leu 145 150 155	Xaa Phe Ala Phe Leu 160
Leu Leu Ile Leu Ile Ala Gln Val Thr Ala Gly 165 170	Ala Leu Phe Tyr Phe 175
Asn Met Gly Lys Val Ser Pro Ser Leu Pro Pro 180 185	Ser Ser Leu Gly Trp 190

<210> 501

<211> 169

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (165)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 501

Ser Ser Ala Ser Thr Asn Met Ser Arg Gly Ser Ser Ala Gly Phe Asp 1 5 10 15

Arg His Ile Thr Ile Phe Ser Pro Glu Gly Arg Leu Tyr Gln Val Glu 20 25 30

Tyr Ala Phe Lys Ala Ile Asn Gln Gly Gly Leu Thr Ser Val Ala Val 35 40 45

Arg Gly Lys Asp Cys Ala Val Ile Val Thr Gln Lys Lys Val Pro Asp 50 55 60

Lys Leu Leu Asp Ser Ser Thr Val Thr His Leu Phe Lys Ile Thr Glu 65 70 75 80

Asn Ile Gly Cys Val Met Thr Gly Met Thr Ala Asp Ser Arg Ser Gln 85 90 95

Val Gln Arg Ala Arg Tyr Glu Ala Ala Asn Trp Lys Tyr Lys Tyr Gly 100 105 110

Tyr Glu Ile Pro Val Asp Met Leu Cys Lys Arg Ile Ala Asp Ile Ser 115 120 125

Gln Val Tyr Thr Gln Asn Ala Glu Met Arg Pro Leu Gly Cys Cys Met 130 135 140

Ile Leu Ile Gly Ile Asp Glu Glu Gln Gly Pro Gln Val Tyr Lys Cys 145 150 155 160

Asp Pro Ala Gly Kaa Tyr Cys Gly Val

<210> 502

<211> 507

<21	2> F	PRT													
<21	3> F	omo	sapi	ens											
<22	0>														
<22	1> 8	ITE													
<22	2> (	10)													
<22	3> X	aa e	qual	s an	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	ds
<22															
	1> S														
<pre>&lt;222&gt; (361) &lt;223&gt; Xaa equals any of the naturally occurring L-amino acid</pre>													ds		
<22	<220>														
<22	1> S	ITE													
<22	2> (	461)													
<22	3> x	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<40	0> 5	02													
Val 1	Arg	Gln	Leu	Cys 5	Arg	Pro	Ala	Glu	Хаа 10	Asp	Ser	Val	Met	Ala 15	Glu
Gln	Val	Ala	Leu 20	ser	Arg	Thr	Gln	Val 25	Cys	Gly	Ile	Leu	Arg 30	Glu	Glu
Leu	Phe		Gly	Asp	Ala	Phe		Gln	Ser	Asp	Thr		Ile	Phe	Ile
		35					40					45			
Ile	Met 50	Gly	Ala	ser	Gly	Asp 55	Leu	Ala	Lys	Lys	Lys 60	Ile	Tyr	Pro	Thr
Ile	Trp	Trp	Leu	Phe	Arg	Asp	Gly	Leu	Leu	Pro	Glu	Asn	Thr	Phe	Ile
65	_	-			70	-	-			75					80
Val	Gly	Tyr	Ala	Arg 85	Ser	Arg	Leu	Thr	Val	Ala	Asp	Ile	Arg	Lys 95	Gln
									,,					,,	
Ser	Glu	Pro	Phe 100	Phe	Lys	Ala	Thr	Pro 105	Glu	Glu	Lys	Leu	Lys 110	Leu	Glu
Asp	Phe	Phe	Ala	Ara	Asn	Ser	Tvr	Val	Ala	Glv	Gln	Tur	Asp	Aen	Δla
•		115		,			120			OL,	0111	125	nsp	пор	niu
Ala		туг	Gln	Arg	Leu		Ser	His	Met	Asn		Leu	His	Leu	Gly
	130					135					140				
Ser	Gln	Ala	Asn	Arg	Leu	Phe	Tyr	Leu	Ala	Leu	Pro	Pro	Thr	Val	Tyr
145				-	150		-			155					160
Glu	Ala	Val	Thr		Asn	Ile	His	Glu		Cys	Met	Ser	Gln		Gly
				165					170					175	

Trp Asn Arg Ile Ile Val Glu Lys Pro Phe Gly Arg Asp Leu Gln Ser 180 185 190

Ser Asp Arg Leu Ser Asn His Ile Ser Ser Leu Phe Arg Glu Asp Gln 195 200 205

Ile Tyr Arg Ile Asp His Tyr Leu Gly Lys Glu Met Val Gln Asn Leu 210 215 220

Met Val Leu Arg Phe Ala Asn Arg Ile Phe Gly Pro Ile Trp Asn Arg 225 230 235 240

Asp Asn Ile Ala Cys Val Ile Leu Thr Phe Lys Glu Pro Phe Gly Thr 245 250 255

Glu Gly Arg Gly Gly Tyr Phe Asp Glu Phe Gly Ile Ile Arg Asp Val 260 265 270

Met Gln Asn His Leu Leu Gln Met Leu Cys Leu Val Ala Met Glu Lys 275 280 285

Pro Ala Ser Thr Asn Ser Asp Asp Val Arg Asp Glu Lys Val Lys Val 290 295 300

Leu Lys Cys Ile Ser Glu Val Gln Ala Asn Asn Val Val Leu Gly Gln 305 310 315 320

Tyr Val Gly Asn Pro Asp Gly Glu Gly Glu Ala Thr Lys Gly Tyr Leu 325 330 335

Asp Asp Pro Thr Val Pro Arg Gly Ser Thr Thr Ala Thr Phe Ala Ala 340 345 350

Val Val Leu Tyr Val Glu Asn Glu Xaa Trp Asp Gly Val Pro Phe Ile 355 360 365

Leu Arg Cys Gly Lys Ala Leu Asn Glu Arg Lys Ala Glu Val Arg Leu 370 375 380

Gln Phe His Asp Val Ala Gly Asp Ile Phe His Gln Gln Cys Lys Arg 385 390 395 400

Asn Glu Leu Val Ile Arg Val Gln Pro Asn Glu Ala Val Tyr Thr Lys 405 410 415

Met Met Thr Lys Lys Pro Gly Met Phe Phe Asn Pro Glu Glu Ser Glu 420 425 430

Leu Asp Leu Thr Tyr Gly Asn Arg Tyr Lys Asn Val Lys Leu Pro Asp 435 440 445

Ala Tyr Glu Arg Leu Ile Leu Asp Val Phe Cys Gly Xaa Gln Met His 450 460

Phe Val Arg Arg Thr Ser Ser Val Arg Pro Gly Val Phe Ser Pro His 465 470 475 480

Cys Cys Thr Arg Leu Ser Trp Arg Ser Pro Ser Pro Ser Pro Ile Phe
485 490 495

Met Ala Ala Glu Ala Pro Arg Arg Gln Thr Ser 500 505

<210> 503

<211> 260

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 503

Gly Pro Glu Val Leu Pro Glu Pro Arg Val Pro Arg Glu Ala Leu Ala 1 5 10 15

Phe Ile Ile Arg Ser Phe Gly Gly Glu Val Ser Trp Asp Lys Ser Leu 20 25 30

Cys Ile Gly Ala Thr Tyr Asp Val Thr Asp Ser Arg Ile Thr His Gln 35 40 45

Ile Val Asp Arg Pro Gly Gln Gln Thr Ser Val Ile Gly Arg Cys Tyr 50 55 60

Val Gln Pro Gln Xaa Val Phe Asp Ser Val Asn Ala Arg Leu Leu Leu 65 70 75 80

Pro Val Ala Glu Tyr Phe Ser Gly Val Gln Leu Pro Pro His Leu Ser

Pro Phe Val Thr Glu Lys Glu Gly Asp Tyr Val Pro Pro Glu Lys Leu

Lys Leu Leu Ala Leu Gln Arg Gly Glu Asp Pro Gly Asn Leu Asn Glu

Ser Glu Glu Glu Glu Glu Asp Asp Asn Asn Glu Gly Asp Gly Asp

130 ' 135 140 Glu Glu Glu Glu Glu Glu Glu Glu Asp Ala Glu Ala Gly Ser 155 Glu Lys Glu Glu Glu Ala Arg Leu Ala Ala Leu Glu Glu Gln Arg Met 165 170 Glu Gly Lys Lys Pro Arg Val Met Ala Gly Thr Leu Lys Leu Glu Asp 185 Lys Gln Arg Leu Ala Gln Glu Glu Ser Glu Ala Lys Arg Leu Ala 195 200 Ile Met Met Lys Lys Arg Glu Lys Tyr Leu Tyr Gln Lys Ile Met Phe Gly Lys Arg Arg Lys Ile Arg Glu Ala Asn Lys Leu Ala Glu Lys 230 235 Arg Lys Ala His Asp Glu Ala Val Arg Ser Glu Lys Lys Ala Lys Lys 250

Ala Arg Pro Glu 260

<210> 504

<211> 424

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (292)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (342)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 504

Leu Leu Gln Arg Cys Tyr Ala Phe Pro Gly His Arg Leu Ala His Ser 1 5 10 15

Gly Ser Asp Leu Ser Leu Leu Val Pro Glu Ile Glu Asp Met Tyr Ser 20 25 30

Ser Pro Tyr Leu Arg Pro Ser Glu Ser Pro Ile Thr Val Glu Val Asn

		35	•				40	ı				45	5		
Cys	Thr 50		Pro	Gly	Thr	Arg 55		Cys	Trp	Met	Ser 60		Gly	Leu	Туг
Ile 65		Gly	Arg	Gln	Ile 70		Glu	Val	Ser	Leu 75		Glu	ı Ala	Ala	Ala 80
Ser	Ala	Asp	Leu	Lys 85		Gln	Ile	Gly	Cys 90	His	Thr	Asp	Asp	Leu 95	
Arg	Ala	Ser	Lys 100		Phe	Arg	Gly	Pro 105		Val	Ile	Asn	Arg 110		Cys
Leu	Asp	Lys 115		Thr	Lys	Ser	Ile 120	Thr	Cys	Leu	Trp	Gly 125		Leu	Leu
туг	11e 130		Va1	Pro	Gln	Asn 135	Ser	Lys	Leu	Gly	Ser 140	Val	Pro	Val	Thr
Val 145	Lys	Gly	Ala	Val	His 150	Ala	Pro	Tyr	Туг	Lys 155	Leu	Gly	Glu	Thr	Thr 160
Leu	Glu	Glu	Trp	Lys 165	Arg	Arg	Ile	Gln	Glu 170	Asn	Pro	Gly	Pro	Trp 175	Gly
Glu	Leu	Ala	Thr 180	Asp	Asn	Ile	Ile	Leu 185	Thr	Val	Pro	Thr	Ala 190	Asn	Leu
Arg	Thr	Leu 195	Glu	Asn	Pro	Glu	Pro 200	Leu	Leu	Arg	Leu	Trp 205	Asp	Glu	Val
Met	Gln 210	Ala	Val	Ala	Arg	Leu 215	Gly	Ala	Glu	Pro	Phe 220	Pro	Leu	Arg	Leu
Pro 225	Gln	Arg	Ile	Val	Ala 230	Asp	Val	Gln	Ile	Ser 235	Val	Gly	Trp	Met	His 240
Ala	Gly	Tyr	Pro	Ile 245	Met	Суѕ	His	Leu	Glu 250	Ser	Val	Gln	Glu	Leu 255	Ile
Asn	Glu	Lys	Leu 260	Ile	Arg	Thr	Lys	Gly 265	Leu	Trp	Gly	Pro	Val 270	His	Glu
Leu	Gly	Arg 275	Asn	Gln	Gln	Arg	Gln 280	Glu	Trp	Glu	Phe	Pro 285	Pro	His	Thr
Thr	Glu 290	Ala	Xaa	Cys	Asn	Leu 295	Trp	Cys	Val	Tyr	Val 300	His	Glu	Thr	Val
Leu	Gly	ıle	Pro	Arg	Ser	Arg	Ala	Asn	Ile	Ala	Leu	Trp	Pro	Pro	Val

305 310 315 320 Arg Glu Lys Arg Val Arg Ile Tyr Leu Ser Lys Gly Pro Asn Val Lys 330 Asn Trp Asn Ala Trp Xaa Ala Leu Glu Thr Tyr Leu Gln Leu Gln Glu 345 Ala Phe Gly Trp Glu Pro Phe Ile Arg Leu Phe Thr Glu Tyr Arg Asn 360 Gln Thr Asn Leu Pro Thr Glu Asn Val Asp Lys Met Asn Leu Trp Val 375 Lys Met Phe Ser His Gln Val Gln Lys Asn Leu Ala Pro Phe Phe Glu 395 Ala Trp Ala Gly Pro Ser Arg Arg Lys Trp Leu Pro Ala Trp Pro Ile 405 410 Cys Leu Asn Gly Arg Lys Ile Leu 420

<210> 505 <211> 70 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (49) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (54) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (66) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (70) <223> Xaa equals any of the naturally occurring L-amino acids <400> 505

WO 00/55173 PCT/US00/05881

460

Leu His Gln Ser Leu Leu His Leu Glu Lys Thr Asn Glu Arg Lys Ser

1 5 10 15

Ile Phe Leu Ile His Tyr Pro Asn Asn Asn Arg Thr Pro Tyr Arg Asn 20 25 30

Tyr Tyr His Tyr Val Ser Lys His Tyr Ile Pro Ile Thr Tyr Pro Thr 35 40 45

Xaa Ser Ile Ile Asp Xaa Ile Ser Ile Pro Thr Met Ile Ser Ala Leu 50 55 60

Asn Xaa Gln Asn Lys Xaa 65 70

<210> 506

<211> 434

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (363)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 506

. Ser Thr His Ala Ser Ala His Ala Ser Val Ser Thr Ala Ala Ala Ala la 1 5 10 15

Ala Leu Ala Ala Ala Val Lys Ala Lys His Leu Ala Ala Val Glu  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Glu Arg Lys Ile Lys Ser Leu Val Ala Leu Leu Val Glu Thr Gln Met
35 40 45

Lys Lys Leu Glu Ile Lys Leu Arg His Phe Glu Glu Leu Glu Thr Ile
50 55 60

Met Asp Arg Glu Xaa Glu Ala Leu Glu Tyr Gln Arg Gln Gln Leu Leu

65	•				70	)				75					80
Ala	Asp	Arç	Glr	Ala 85		e His	. Met	: Glu	90		Lys	Tyr	Ala	Glu 95	Met
Arg	Ala	Arg	100		His	Phe	Glr	105		His	Gln	Gln	Gln 110		Gln
Pro	Pro	Pro 115		Leu	Pro	Pro	Gly 120		Gln	Pro	Ile	Pro 125		Thr	Gly
Ala	Ala 130	Gly	Pro	Pro	Ala	135		Gly	Leu	Ala	Val 140		Pro	Ala	Ser
Val 145	Val	Pro	Ala	Pro	Ala 150		Ser	Gly	Ala	Pro 155	Pro	Gly	Ser	Leu	Gly 160
Pro	Ser	Glu	Gln	11e 165		Gln	Ala	Gly	Ser 170		Ala	Gly	Pro	Gln 175	Gln
Gln	Gln	Pro	Ala 180		Ala	Pro	Gln	Pro 185		Ala	Val	Pro	Pro 190	Gly	Val
Pro	Pro	Pro 195		Pro	His	Gly	Pro 200	Ser	Pro	Phe	Pro	Asn 205	Gln	Gln	Thr
Pro	Pro 210	Ser	Met	Met	Pro	Gly 215		Val	Pro	Gly	Ser 220	Gly	His	Pro	Gly
7al 225	Ala	Gly	Asn	Ala	Pro 230		Gly	Leu	Pro	Phe 235	Gly	Met	Pro	Pro	Pro 240
ro	Pro	Pro	Pro	Ala 245	Pro	Ser	Ile	Ile	Pro 250	Phe	Gly	Ser	Leu	Ala 255	Asp
er	Ile	Ser	Ile 260	Asn	Leu	Pro	Ala	Pro 265	Pro	Asn	Leu	His	Gly 270	His	His
is	His	Leu 275	Pro	Phe	Ala	Pro	Gly 280	Thr	Leu	Pro	Pro	Pro 285	Asn	Leu	Pro
al	Ser 290	Met	Ala	Asn	Pro	Leu 295	His	Pro	Asn	Leu	Pro 300	Ala	Thr	Thr	Thr
et 05	Pro	Ser	Ser	Leu	Pro 310	Leu	Gly	Pro	Gly	Leu 315	Gly	Ser	Ala	Ala	Ala 320
ln	Ser	Pro	Ala	11e 325	Val	Ala	Ala	Val	Gln 330	Gly	Asn	Leu	Leu	Pro 335	Ser
la	Ser	Pro	f.eu	Dro	Acn	Dro	C1	The	Dro	T 011	Dra	0-0		n	m b

462

350

345

Ala Pro Ser Pro Arg His Gly His Pro Cys Xaa His Leu His Ser Glu 360 Glu Pro Ala Arg His Leu Ser Pro Ser Pro Pro Val Asp Ile Thr Val 375 Pro Gly Thr Ala Leu Pro Pro Pro Leu Gly Pro Ser Pro Ala Trp Arg 390 395 Val His His Tyr Val Arg Lys Ala Pro Ser Ala Pro Pro Lys Pro Ser 410 Pro Cys Leu Thr Glu Ala Cys Ile Phe Ile Ser Asp Tyr Ser Arg Thr 425 Ser Val <210> 507 <211> 303 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (165) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (280) <223> Xaa equals any of the naturally occurring L-amino acids <400> 507 Glu Tyr Val Phe Pro Ala Lys Lys Lys Leu Gln Glu Tyr Arg Val Leu Ile Thr Thr Leu Ile Thr Ala Gly Ser Trp Ser Arg Pro Ser Phe Pro 25 Leu Ile Thr Ser His Thr Ser Ser Ser Met Arg Leu Ala Thr Ala Trp

Ser Leu Arg Ser Leu Val Ala Ile Ala Gly Leu Met Glu Val Lys Glu

Thr Gly Asp Pro Gly Gly Gln Leu Val Leu Ala Gly Asp Pro Arg Gln

65					70					75				•	80
Leu	Gly	Pro	Val	Leu 85		Ser	Pro	Leu	Thr	Gln	Lys	His	Gly	Leu 95	Gly
Tyr	Ser	Leu	Leu 100	Glu	Arg	Leu	Leu	Thr 105		Asn	Ser	Leu	туг 110	Lys	Lys
Gly	Pro	Asp 115	Gly	туг	Asp	Pro	Gln 120	Phe	Ile	Thr	Lys	Leu 125	Leu	Arg	Asn
Tyr	Arg 130	Ser	His	Pro	Thr	Ile 135	Leu	Asp	Ile	Pro	Asn 140	Gln	Leu	Tyr	Tyr
Glu 145	Gly	Glu	Leu	Gln	Ala 150	Cys	Ala	Asp	Val	Val 155	Asp	Arg	Glu	Arg	Phe 160
Cys	Arg	Trp	Ala	Xaa 165	Leu	Pro	Arg	Gln	Gly 170	Phe	Pro	Ile	Ile	Phe 175	His
Gly	Val	Met	Gly 180	Lys	Asp	Glu	Arg	Glu 185	Gly	Asn	Ser	Pro	Ser 190	Phe	Phe
Asn	Pro	Glu 195	Glu	Ala	Ala	Thr	Val 200	Thr	Ser	Týr	Leu	Lys 205	Leu	Leu	Leu
Ala	Pro 210	Ser	Ser	Lys	Lys	Gly 215	Lys	Ala	Arg	Leu	Ser 220	Pro	Arg	Ser	Val
Gly 225	Val	Ile	Ser	Pro	Туг 230	Arg	Lys	Gln	Val	Glu 235	Lys	Ile	Arg	Tyr	Cys 240
Ile	Thr	Lys	Leu	Asp 245	Arg	Glu	Leu	Arg	Gly 250	Leu	Asp	Asp	Ile	Lys 255	Asp
Leu	Lys	Val	Gly 260	Ser	Val	Glu	Glu	Phe 265	Gln	Gly	Gln	Glu	Arg 270	Ser	Val
Ile	Leu	Ile 275	Ser	Thr	Val	Arg	Xaa 280	Ala	Arg	Ala	Leu	Cys 285	Ser	Trp	Ile
Trp	Thr 290	Leu	Ile	Trp	Val	Ser 295	Leu	Arg	Thr	Pro	Arg	Gly	Ser	Met	

<210> 508

<sup>&</sup>lt;211> 250

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

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				als a	iny o	f th	e na	tura	11 <b>y</b>	occu	rrin	g L-	amin	o ac	ids
<4	<00	508													
Gl	u Gl l	.n Ty	/r Le	∍u Pr	o Le 5	u Th	r Gl	u Gl		u Le O	u Gl	u Ly	s Gl		a Xaa 5
Ly	s Va	l Gl	.u G1	Ly Ph 20	e As	p Le	u Va	1 Gl:		s Pr	o Se	г ту	r Ту 3		l Arg
Lei	ı Gl	y Se 3	r Le	u Se	r Th	r Ly:	s Lei	u His O	s Se	r Ar	g Ala	а Ту 4		n Gl	n Ala
Lei	ı Se 5	r Ar O	g Va	ıl Ly:	s Gl	a Ala 59		s Glr	Ly:	s Se	r Glr 60		n Thi	r Ile	e Ser
Glr 65	i Lei	u Hi	s Se	r Th	r Va) 70	l His	. Le	ı Ile	Gl	u Phe 7 <u>5</u>		Arq	g Lys	s Ası	val 80
Туг	Sei	r Al	a As	n Glr 85	Lys	: Ile	: Glr	Asp	Ala 90		n Asp	Lys	Leu	ту: 95	Leu
Ser	Tr	) Va	1 Gl	o Trp O	Lys	Arg	Ser	11e		Tyr	Asp	Asp	Thr 110		Glu
Ser	His	Cys	s Ala	a Glu	His	Ile	Glu 120	Ser	Arg	Thr	Leu	Ala 125		Ala	Arg
Asn	Leu 130	Thi	: Glr	n Gln	Leu	Gln 135	Thr	Thr	Cys	His	Thr 140	Leu	Leu	Ser	Asn
Ile 145	Gln	Gly	' Val	l Pro	Gln 150	Asn	Ile	Gln	Asp	Gln 155	Ala	Lys	His	Met	Gly 160
Val	Met	Ala	Gly	Asp 165	Ile	Tyr	Ser	Val	Phe 170	Arg	Asn	Ala	Ala	Ser 175	Phe
Lys	Glu	Val	Ser 180	Asp	Ser	Leu	Leu	Thr 185	Ser	Ser	Lys	Gly	Gln 190	Leu	Gln
ys	Met	Lys 195	Glu	Ser	Leu	Asp	Asp 200	Val	Met	Asp	Tyr	Leu 205	Val	Asn	Asn
'hr	Pro 210	Leu	Asn	Trp	Leu	Val 215	Gly	Pro	Phe	туг	Pro 220	Gln	Leu	Thr	Glu
er 25	Gln	Asn	Ala	Gln	Asp 230	Gln	Gly	Ala	Glu	Met 235	Asp	Lys	Ser	Ser	Gln 240

Glu Thr Gln Arg Ser Glu His Lys Thr His 245 250

<210> 509

<211> 98

<212> PRT

<213> Homo sapiens

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<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 509

His Glu Leu Trp Gly Cys Gly Pro Val Thr Pro Arg Arg Thr Ala Pro
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Ser Gly Trp Ala Gln Ala Pro Leu Ser Asp Thr Ala Gln Val Tyr Met  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Glu Leu Gln Gly Leu Val Asp Pro Gln Ile Gln Leu Pro Leu Leu Ala 35 40 45

Ala Arg Ser Thr Ser Cys Arg Ser Ser Leu Ile Ala Ser Gln Pro Gly 50 55 60

Pro His Gln Lys Gly Arg Gln Gly Leu Arg Gly Asn Lys Ser Phe Leu 65 70 75 80

Pro Ser Ser Trp Asn Cys Gln Asn Trp Thr Arg Gln Pro Leu Thr Ser 85 90 95

Xaa Ser

<210> 510

<211> 392

<212> PRT

<213> Homo sapiens

<400> 510

Gly Ala Met Arg Gly Asp Arg Gly Arg Gly Arg Gly Gly Arg Phe Gly
1 5 10 15

Ser Arg Gly Gly Pro Gly Gly Gly Phe Arg Pro Phe Val Pro His Ile 20 25 30

Pr	o Ph	e As	p Ph	е Ту	r Lei	а Су	s Gl 4		t Al	a Pho	e Pro	Arq 45		l Ly:	s Pro
Al	a Pr 5	o As O	p Gl	u Th	r Sei	r Ph		r Gl	u Ala	a Lei	Leu 60		Arq	g Ası	ı Gln
As <sub>1</sub>	p Le S	u Al	a Pr	o As:	n Sei 70		a Gl	u Gli	n Ala	a Sei 75		Leu	Ser	Let	val 80
Th	t Ly	s Il	e As	n Ası 8		. Ile	e Ası	Ası	n Lei 90		val	Ala	Pro	95	Thr
Phe	e Gl	u Va	1 Gl:	n Ile O	e Glu	Glu	ı Val	105		ı Val	Gly	Ser	Туг 110		Lys
Gl	Th:	11:	t Th:	r Thi	Gly	His	120		. Ala	Asp	Leu	Val 125	Val	Ile	Leu
Lys	130	e Lei	ı Pro	Thr	Leu	Glu 135		Val	. Ala	Ala	Leu 140	Gly	Asn	Lys	Val
Val 145	Glu	ı Sei	r Leu	a Arg	150	Gln	Asp	Pro	Ser	G1u 155	Val	Leu	Thr	Met	Leu 160
Thr	Asr	Glu	Thr	Gly 165	Phe	Glu	Ile	Ser	Ser 170		Asp	Ala	Thr	Val 175	Lys
Ile	Leu	Ile	Thr 180	Thr	Val	Pro	Pro	Asn 185	Leu	Arg	Lys	Leu	Asp 190	Pro	Glu
Leu	His	Leu 195	Asp	Ile	Lys	Val	Leu 200	Gln	Ser	Ala	Leu	Ala 205	Ala	Ile	Arg
His	Ala 210	Arg	Trp	Phe	Glu	Glu 215	Asn	Ala	Ser	Gln	Ser 220	Thr	Val	Lys	Val
Leu 225	Ile	Arg	Leu	Leu	Lys 230	Asp	Leu	Arg	Ile	Arg 235	Phe	Pro	Gly	Phe	Glu 240
Pro	Leu	Thr	Pro	Trp 245	Ile	Leu	Asp	Leu	Leu 250	Gly	His	Tyr	Ala	Val 255	Met
Asn	Asn	Pro	Thr 260	Arg	Gln	Pro	Leu	Ala 265	Leu	Asn	Val .		Tyr 270	Arg	Arg
Cys	Leu	Gln 275	Ile	Leu	Ala	Ala	Gly 280	Leu	Phe	Leu		Gly 285	Ser	Val	Gly
Ile	Thr 290	Asp	Pro	Cys	Glu	Ser 295	Gly	Asn		Arg		His '	Thr	Val	Met

<210>'511 <211> 72 <212> PRT <213> Homo sapiens

<400> 511

His Gly Gly Gly Lys Gly Arg Gln Val Gly Leu His Ser Val Gln Arg  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Pro Ala Arg Arg Glu Thr Ala Ala Ser Trp Gly Leu Cys Val Lys Ile
20 25 30

Pro Asp Leu Gly Val Ala Phe Val Tyr Lys Met Gln Glu Gly Lys Pro 35 40 45

Val Pro Asp Ser Ser Arg Gln His Ala Gln Leu Ser Gly Ser Pro Val 50 55 60

Ser Gln Gly Leu Ser Leu Pro Leu 65 70

<210> 512 <211> 181 <212> PRT <213> Homo sapiens <220> <221> SITE

<222> (14)

<22	3> x	aa e	gual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<22	0>														
	i> s	TTE													
	2> (														
			au a l	s an	v of	+ ha	nati	ural	1,, 0	cour	rina	r -		201	da
		aa c	quar	5 all	y OL	cne	nac	urar	ıy o	ccur	ring	L-a	mino	acı	us
<22	0>														
<22	1> S	ITE													
<22	2> (	135)													
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<40	0> 5	12													
Gly	Trp	Cys	Ser	Cys	Ala	His	Ser	Ser	Ala	Tro	Pro	Glv	Xaa	Trp	Glv
1				5					10			J-1		15	G-1
_				-											
Δla	Ser	Glv	Tle	Pro	G1 n	Gl n	בות	Pro	Mat	Thr	17 - 1	Cuc	Nen	Cl n	212
	501	Gry	20	110	GIII	GIII	AIG	25	riec	TILL	Val	Cys	30	GIII	HIG
			20					23					30		
V	Dro	17 × 1	m h ss	Dha	T	T	T		• • •	<b>~1</b>	<b>01</b>	<b>-3</b>			
Add	PLO		Thr	Phe	Leu	ren		HIS	Leu	GIu	GLA		Asp	He	His
		35					40					45			
Thr		Ser	His	Leu	Ser		Pro	Pro	Pro	Gly		Ala	His	Arg	Met
	50					55					60				
Gly	Thr	Gly	Gly	Ser	Arg	Asn	Pro	Asn	Pro	Ala	Trp	Leu	Gly	Gly	Ala
65					70					75					80
Leu	Leu	Val	Arg	Gly	Arg	Pro	Ala	Ser	Leu	Ala	Pro	Trp	Gly	His	Ser
				85					90			-	-	95	
Trp	Lvs	Arg	Glv	Leu	Ala	His	Ala	Pro	Leu	Ara	Ala	Glv	Thr	Cvs	Thr
•	•	,	100					105				1	110	0,0	
								103					110		
210	Hic	Thr	7 20	His	Car		C	m	×	»	<b>M</b>	T	G		<b>.</b>
or,	1113	115	nry	1115	ser	MIG		пр	ASII	Arg	тър		cys	ser	cys
		113					120					125			
c	- 1		_												
ser		Pro	Arg	Ala	Ala		Leu	Arg	Pro	Cys		Ser	His	Met	His
	130					135					140				
rp	Thr	Arg	Ala	Glu	Thr	Pro	Val	Cys	Tyr	Arg	Ala	Leu	Val	Leu	Cys
145					150					155					160
Gly	Pro	Gly	Ala	Thr	Ala	Gln	Ser	Ser	Gln	Trp	Arg	Ser	Thr	Pro	Leu
-		-		165		-			170		- 3			175	
Asp	Ser	Ile	Phe	Pho											
F			180												

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<21	2> 1	PRT													
<21	.3> 1	omo	sapi	iens											
<22															
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	2> (														
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<40	0> 5	513													
Leu	Gly	/ Asp	Thr	Ile	Glu	Gly	Thr	Pro	Ala	Glv	Thr	Val	Pro	Xaa	Phe
1				5		•			10					15	
Pro	Gly	Arc	Pro	Thr	Arg	Ala	Ile	Met	Ala	Gln	Asp	Gln	Gly	Glu	Lys
			20					25					30		•
Glu	Asn	Pro	Met	Arg	Glu	Leu	Arg	Ilę	Arg	Lys	Leu	Cys	Leu	Asn	Ile
		35	•				40	-				45			
٠	17- 1	<b>a</b> 1		_		,									
_ys	Va 1 50	. СТУ	GIU	Ser	Gly			Leu	Thr	Arg			Lys	Val	Leu
	30					55					60				
3111	Gin	T.en	Thr	Glu	G) n	Th-	Dec	Val	n	· 	•		_	_	
65				OLY	70	1112	710	vai	Pne	75		мта	Arg	Tyr	
					,,					73					80
/al	Arg	Ser	Phe	Gly	Ile	Arq	Ara	Asn	Glu	Lvs	Tle	Ala	Va 1	Hic	Cue
	-			85		5	••••		90	2,0		MIU	Vai	95	Cys
Chr	Val	Arg	Gly	Ala	Lys	Ala	Glu	Glu	Ile	Leu	Glu	Lys	Gly	Leu	Lvs
			100					105				-	110		-1-
		•			٠.										
/al	Arg	Glu	Tyr	Glu	Leu	Arg	Lys	Asn	Asn	Phe	Ser	Asp	Thr	Gly	Asn
		115					120					125			
he	Gly	Phe	Gly	Ile	Gln		His	Ile	Asp	Leu	Gly	Ile	Ĺys	Tyr	Asp
	130					135					140				
	C	71.	۵,		_										
45	Ser	116	GIA	TTE		GIA	Leu	Asp	Phe		Val	Val	Leu	Gly	Arg
43					150					155					160
ro	Glv	Pho	Sar	τla	7 1 -	<b>3</b>	•	•					_		
	1		361	165	MIG	ASP	ràs	Lys		Arg	Thr	GIA	Cys		Gly
				103					170					175	
la	Lvs	His	Ara	110	Ser	T.ve	G1:-	Glu	n 1 -	Mot	n-~	m	nk -	<b>61</b> -	<b>a</b> ?
	-,-		180		261	-ys	GIU	185	uld	nec	arg	rrp	190	GIN	GIN
								100					190		
ys	Tyr	Asp	Gly	Ile	Ile	Leu	Pro	Gly	Lys						
		195	-				200		<b>4</b> -						

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<210> 514
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 <220>
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<220>
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Xaa Xaa Lys Asn Xaa Ile Thr Pro Lys Glu Glu Ser Pro Pro His Xaa
                                     10
Ala Leu Leu Ser Lys Cys Leu Leu Thr Pro Ser Pro Lys Met Pro Pro
                                25
Ile Leu Xaa Val Met Ala Ala Leu Gly Phe Glu Arg Arg Glu Phe Gly
         35
Ser Thr Ser Val Glu Arg Val Gln Ser Arg Gln Leu Asp Cys Phe
                        55
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<210> 515

<211> 218

<212> PRT

<213> Homo sapiens

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<23	22>	(151	)												
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	20>														
		SITE													
		(209	•												
<27	23> :	Kaa 6	equa l	Ls ar	ny of	t the	nat	ural	lly	occui	ring	J L−a	mino	aci	ds
<22	20>														
<22	!1> !	SITE													
<22	2>	(211)	)												
<22	3> )	⟨aa €	equal	s ar	y of	the	nat	ural	ly o	occur	ring	L-a	mino	aci	ds
<40	0> 9	515													
Ser 1		ı Ala	Arg	Gly 5		Gln	Arg	Pro	Asp 10	Ala	Val	Leu	Tyr	Ala 15	_
His	Тух	: Asn	lle 20		Val	Ile	His	Ala 25		Arg	Arg	Ala	Val 30	Asp	Asp
_															
Pro	Gly	35		Phe	Asn	Gln	Leu 40		Lys	Met	Leu	Туг 45	Pro	Glu	Tyr
His	Lys	Val	His	Gln	Met	Met	Arg	Glu	Gln	ser	Ile	Leu	Ser	Pro	Ser
	50				•	55			-		60				501
Pro	Tyr	Glu	Glv	Tvr	Ara	Ser	ī.eu	Pro	Aro	His	Gla	Lou	T ou	C	nh -
65	-		•	•	70					75	01	Deu	. Leu	Cys	80
Lys	Glu	Asp	Cys	Gln 85	Ala	Val	Phe	Gln	Asp 90	Leu	Glu	Gly	Val	Glu 95	Lys
17 - 1	Dho	C1	11-1	<b>6</b>	_		_			_	_				
Vai	Pile	GIY	100	ser	Leu	Val	Leu		Leu	Ile	Gly	Ser	His	Pro	Asp
			100					105					110		
Leu	Ser	Phe	Len	Pro	G1 <sub>11</sub>	۸la	C1.,	A 3 a	B	Db -		••- •	_	_	_
		115	Deu	110	Gry	MIG	120	AIA	Asp	Phe	Ala		Asp	Pro	Asp
							120					125			
Gln	Pro	Leu	Ser	Ala	I.vs	Ara	Aen	Pro	710	Asp	1701	7.00	D	Db -	<b></b>
	130				-, -	135	non	110	116	ASP	140	ASD	PIO	Pne	rnr
											140				
Tyr	Gln	Ser	Thr	Ara	Gln	Yaa	Gly	ī au	T	Ala	Mot	c1	D	• • • •	
145					150	···uu	CLY	beu	IYL	155	Mec	GIY	PLO	Leu	
										133					160
Gly-	Asp	Asn	Phe	Val	Ara	Phe	Val	Gln	alv	Gly	د ( ۵	I.a.ı	Δ1 <del></del>	บร่า	212
-	-			165	. 9			~211	170	1		Seu	ura	175	
				•									,	.,	
Ser	Ser	Leu	Leu	Arg	Lys	Glu	Gln	Asn	His	Leu	His	Arg		Pro	Trp
			180					185				•	190		Ľ

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Ser Ser Leu Arg Gly Ile His Pro Leu Ile Asp Leu Lys Ser Gly Val
          195
                             200
                                                  205
  Xaa Pro Xaa Leu Val Lys Leu Thr Ala Gln
      210
                         215
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, <222> (22)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 516
 Asn Gly Arg Pro Asp Ser Thr Gly Pro Ala Ile Pro Gly Ile Leu Ser
                                      10
 Trp Gly Phe Glu Thr Xaa Leu Arg Asp Arg Glu Thr Asp Pro Arg Asn
              20
                                  25
 Val Leu Asn Cys Asn Gly Pro His Thr
         35
 <210> 517
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Gly l		: Asn	Arg	Ser S		Cys	Gly	Arg	Asn 10		Thr	Val	Tyr	Gly 15	_
Gly	Val	Туг	Phe 20		Arg	Arg	Ala	Ser 25		Ser	Val	Gln	Asp 30	Arg	Туr
Ser	Pro	Pro 35		Ala	Asp	Gly	His 40		Ala	Val	Phe	Val 45	Ala	Arg	Val
Leu	Thr 50		Asp	Tyr	Gly	Gln 55	Gly	Arg	Arg	Gly	Leu 60	Arg	Ala	Pro	Pro
Leu 65	Arg	Gly	Pro	Gly	His 70	Val	Leu	Leu	Arg	Tyr 75	Asp	Ser	Ala	Val	Asp 08
Cys	Ile	Cys	Gln	Pro 85	Ser	Ile	Phe	Val	Ile 90	Phe	His	Asp	Thr	Gln 95	Ala
Leu	Pro	Thr	His 100	Leu	Ile	Thr	Cys	Glu 105	Ala	Arg	Ala	Pro	Arg 110	Phe	Pro
Arg	Arg	Pro 115	Leu	Trp	Xaa	Pro	Gly 120	Pro	Leu	Pro	Arg	His 125	Leu	Thr	Glu
Gly	Ala 130	Thr	Leu	Trp	Pro	Pro 135	Ala	Ser	Gln	Ala	Pro 140	Ser	Ser	Ala	Gln
Ala 145	Asp	Ala	Pro	Arg	Pro 150	Gln	Leu	Trp	Pro	Pro 155	Glu	Leu	Ser	Pro	Gly 160
Xaa	Pro	Суѕ	Leu	Pro 165		Arg	Ala	Pro	Glu 170	Gly	Gly	Val	Gly	Asp 175	Gly
Gly	Gln	Gln	Arg 180	Pro	Arg	Gly	Ala	Gly 185	Leu	Gly	Pro	Ser	Leu 190	Gly	Arg
Pro	His	His 195	Gln	Gly	Ser	Ala	Glu 200	Pro	Arg	Arg	Xaa	His 205	Arg	Pro	Pro
Ala	Ala 210	Pro	Arg	Pro	Arg	Pro 215	Ser	Arg	Leu	Cys	Cys 220	Leu	Asn	Lys	Arg
Glu 225	Arg	Glu	Pro	Arg	Arg 230	Lys	Gly	Pro	Gly	Lys 235	Lys	Lys	Lys	Lys	Lys 240
Lys	Lys	Lys	Lys	Lys 245	Lys	Lys	Lys	Lys	Lys 250						

WO 00/55173 PCT/US00/05881

474

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<210> 518
  <211> 100
  <212> PRT
  <213> Homo sapiens
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  <221> SITE
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  <223> Xaa equals any of the naturally occurring L-amino acids
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 Asn Pro Xaa Lys Lys Leu Xaa Ile Leu Ile Lys Trp Pro Pro Pro Phe
                                    10
 Pro Pro Ser Phe Pro Pro Ser Pro Asn Ser Leu Ser Ser Ser Phe
                                  25
 Pro Pro Pro Leu Ser Leu Phe Ser Pro Ser Phe Thr Phe Leu Ile Ser
                             40
 Val Lys Leu Glu Arg Phe Glu Ile Pro Ile Lys Val Arg Leu Ser Pro
                         55
 Glu Pro Trp Thr Pro Glu Thr Gly Leu Val Thr Asp Ala Phe Lys Leu
                 70
                                        75
Lys Arg Lys Glu Leu Arg Asn His Tyr Leu Lys Asp Ile Glu Arg Met
Tyr Gly Gly Lys
           100
<210> 519
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<221> SITE

Ser Trp Gly Arg Met Glu Asn Leu Ala Ser Tyr Arg
50 55 60

<210> 520

<211> 120

<212> PRT

<213> Homo sapiens

<220>

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 520

Ser His Pro Tyr Ala Pro Ser Cys Gly Leu Arg Gly Pro Gly Ala Ala 1 5 10 15

Ser Arg Ala Arg Thr Arg Glu Arg Xaa Pro Gln Ala Glu Ala Glu Ala 20 25 30

Arg Ser Thr Pro Gly Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe
35 40 45

Arg Gln Arg Phe Arg Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg 50 55 60

Glu Ala Phe Arg Gln Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro 65 70 75 80

Asp Ile Arg Thr Lys Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln 95

Leu Leu Ala Ile Leu Pro Glu Ala Ala Arg Ala Arg Arg Ile Arg Arg 100 105 110

Arg Thr Asp Val Arg Ile Thr Gly

WO 00/55173

## PCT/US00/05881

476

115

Leu Pro Lys Asp Glu Gly Thr Cys Arg Asp Phe Ile Leu Lys Trp Tyr

40
45

Tyr Asp Pro Asn Thr Lys Ser Cys Ala Arg Phe Trp Tyr Gly Gly Cys
50 55 60

Gly Gly Asn Glu Asn Lys Phe Gly Ser Gln Lys Glu Cys Glu Lys Val 65 70 75 80

Cys Ala Pro Val Leu Ala Lys Pro Gly Val Ile Ser Val Met Gly Thr 85 90 95

<210> 522

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<213> Homo sapiens

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<400> 522

Asn Ser Gly Phe Arg Pro Lys Asn Pro Val Gly Arg Gly Glu Pro
1 5 10 15

Glu Xaa Cys Gly Gly Ala Gly Gly Leu Gly Cys Thr Leu Val Trp Gly 20 25 30

Gly Thr Gly Ala Ala Val Val Thr Gly Val Val Trp Leu Leu Pro

35 40 45

Asn Gly Gly Val Gly Val Gly Leu Leu Gly Pro Gln Ser Pro Val Gly 50 55 60

Gly Ser Asp Ser Ala Pro Tyr Ser Leu His Pro Ala Gly Arg Thr Trp 65 70 75 80

Gly Leu Arg Ser Glu Cys Ile Pro Pro Leu Ser Phe Asn Leu Ser Cys 85 90 95

Arg Thr His Ser Gly Pro Gly Ala Arg Leu Gly Glu Ala Gly Pro Asn 100 105 110

Tyr Gly Ser Arg Glu Leu Gln Val Pro Thr

<210> 523

<211> 94

<212> PRT

<213> Homo sapiens

<400> 523

Leu Ile Pro Gln Val Cys Cys Lys His Ser Met Glu Asp Thr Asp Asp
1 5 10 15

Ser Leu Val Leu Val Phe Leu Ser Ala Val Asn Val Gln Gln Phe Ala 20 25 30

Gln Glu Leu Gly Asp His Ile Cys Leu Ser Gly Gln Gly Ser Glu Val 35 40 45

His Trp Asn Leu Leu Arg Asn Leu Phe Val Lys Thr Ile Val Asn Asn 50 55 60

Tyr Cys Ile Phe Leu Gln Lys Tyr Ile Leu Glu Asn Cys Ile Leu Ser 65 70 75 80

Ile Lys Val Phe Leu Cys Lys Lys Lys Lys Lys Lys Leu Val

<210> 524

<211> 93

<212> PRT

<213> Homo sapiens

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 Ser Ala Val Met Gly Arg Lys Lys Lys Gln Leu Lys Pro Trp Cys
 Trp Tyr Cys Asn Arg Asp Phe Asp Asp Glu Lys Ile Leu Ile Gln His
              20
                                  25
 Gln Lys Ala Lys His Phe Lys Cys His Ile Cys His Lys Lys Leu Tyr
                             40
 Thr Gly Pro Gly Leu Ala Ile His Cys Met Gln Val His Lys Glu Thr
                                             60
 Ile Asp Ala Val Pro Asn Ala Tyr Leu Gly Glu Gln Thr Xaa Ile Gly
                    70
Asn Ile Trp Tyr Gly Xaa Tyr Ser Arg Lys Arg Tyr Xaa
                 85
                                     90
<210> 525
<211> 324
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<400> 525
Asp Leu Arg Leu Ser Arg Pro Glu Ala Val Glu Ala Glu Ala Met Met
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Ala Ala Met Ala Thr Ala Arg Val Arg Met Gly Pro Arg Cys Ala Gln
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Ala	Leu	Trp 35		Met	Pro	Trp	Leu 40		Val	Phe	Leu	Ser 45		Ala	Ala
Ala	Ala 50		Ala	Ala	Ala	Ala 55	Glu	Gln	Gln	Val	Pro 60		Val	Leu	Trp
Ser 65		Asp	Arg	Asp	Leu 70		Ala	Pro	Ala	Ala 75		Thr	His	Glu	Gly 80
His	Ile	Thr	Ser	Asp 85		Gln	Leu	Ser	Thr 90		Leu	Asp	Pro	Ala 95	Leu
Glu	Leu	Gly	Pro 100	Arg	Asn	Val	Leu	Leu 105	Phe	Leu	Gln	Asp	Lys 110	Leu	Ser
Ile	Glu	Asp 115	Phe	Thr	Ala	Tyr	Gly 120	Gly	Val	Phe	Gly	Asn 125	Lys	Gln	Asp
Ser	Ala 130	Phe	Ser	Asn	Leu	Glu 135	Asn	Ala	Leu	Asp	Leu 140	Ala	Pro	Ser	Ser
Leu 145	Val	Leu	Pro	Ala	Val 150	Asp	Trp	Tyr	Ala	Val 155	Ser	Thr	Leu	Thr	Thr 160
Tyr	Leu	Gln	Glu	Lys 165	Leu	Gly	Ala	Ser	Pro 170	Leu	His	Val	Asp	Leu 175	Ala
Thr	Leu	Arg	Glu 180	Leu	Lys	Leu	Asn	Ala 185	Ser	Leu	Pro	Ala	Leu 190	Leu	Leu
Ile	Arg	Leu 195	Pro	Tyr	Thr	Ala	Ser 200	Ser	Gly	Leu	Met	Ala 205	Pro	Arg	Glu
Val	Leu 210	Thr	Gly	Asn	Asp	Glu 215	Val	Ile	Gly	Gln	Val 220	Leu	Ser	Thr	Leu
ւրs 225	Ser	Glu	Asp	Val	Pro 230	Tyr	Thr	Ala	Ala	Leu 235	Thr	Ala	Val	Arg	Pro 240
Ser	Arg	Val	Ala	Arg 245	Asp	Val	Ala	Val	Val 250	Ala	Gly	Gly	Leu	Gly 255	Arg
31n	Leu	Leu	Gln 260	Lys	Gln	Pro	Val	Ser 265	Pro	Val	Ile	His	Pro 270	Pro	Val
Ser	Tyr	Asn 275	Asp	Thr	Ala	Pro	Arg 280	Ile	Leu	Phe	Trp	Ala 285	Gln	Asn	Phe
er	Val 290	Ala	Tyr	Lys	Asp	Gln 295	Trp	Glu	Asp	Leu	Thr 300	Pro	Leu	Thr	Phe

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Gly Val Gln Glu Leu Asn Leu Thr Gly Ser Phe Trp Asn Asp Ser Phe
  305
                      310
                                        315
  Ala Ser Xaa His
 <210> 526
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 <213> Homo sapiens
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 Phe Xaa Val Ser Trp Thr Trp Lys Gln Val Ser Glu Phe Pro Gly Asp
                                    10
 Gln Arg Asp Glu val Leu Gln Leu Pro Pro Ser Ser Cys Asn Leu Val
              20.
 Ser Ser Gly Ala Gly Gly Glu Pro Glu Lys Leu Ala Ser Tyr Ile Thr
         35
                         40
Ser Leu Trp Leu Phe Phe Ile Cys Lys Thr Arg Ile Ile Leu Asn Cys
                         55
Lys Gly
 65
<210> 527
<211> 62
<212> PRT
<213> Homo sapiens
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<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 527
Asn Thr Gln Leu Trp Phe Leu Cys Phe Pro Asn Cys Lys Ala Ala Asp
```

Asn Lys Thr Pro Gly Phe His Val Ser Ser Ala Met Ser Thr Leu Thr  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Gln Ile Leu Lys Gln Asn Ser Xaa Asn Ala Val Leu Arg Ile Gln Leu 35 40 45 .

Leu Leu Lys Pro Ile Ser Ile Cys Ile Ile Thr Thr Asn Ile 50 55 60

<210> 528

<211> 122

<212> PRT

<213> Homo sapiens

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<222> (80)

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<220>

<221> SITE

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<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 528

Tyr Asn Lys Ile Glu Ile Met His Leu Val Met Trp Pro Thr Ser Leu 1 5 10 15

Leu Thr Thr Met Asp Cys Phe Gln Gln Gln Leu Ile Phe Trp Ser Val 20 25 30

Leu Arg Gly Ala Cys Met Ser Phe Val Thr Ser Gly Ser Thr Pro Ala 35 40 45

Val Lys Tyr Cys Phe His Leu Pro Leu Gln Lys Ala Ser Cys Leu Leu 50 55 60

Thr Ser Thr Ala Lys Ala Leu Phe Trp Thr Gly Tyr Leu Ile Lys Xaa 65 70 75 80

Ile Ser Val Arg Leu Cys Ser Val Ile Pro Ser Glu Pro Arg Phe Val 85 90 95

Ser Lys Ala Thr Val Leu Ser Xaa Xaa Pro Cys Val Trp Gly Gln Val

100 105 110 Ala Ile Pro Pro Met Ser Leu Val Ile Leu 115 120 <210> 529 <211> 182 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (25) <223> Xaa equals any of the naturally occurring L-amino acids Asp Arg Thr Arg Leu Ser Gln Ala Ser Thr Pro Thr Pro Val Cys Trp 1 Gly Leu Leu Gln Pro Pro Pro Trp Xaa Glu Ala Trp Tyr Arg Leu Thr 25 His Arg Gly Leu Cys Gln Val Arg Phe Cys Arg Trp Ser Gln Ala Leu 40 Pro Glu Ala Arg Gly Gly Ala Trp Ala Gly Ser Pro Gly Glu Gly Gln Ala Gly Pro Arg Leu His Thr His Ile Gln Pro Ala Gly Leu Ser Ala 75 Val Leu Ser Pro Ser Leu Ser Ser Pro Ser Ser Ala Val Thr Leu Ser Ser Pro Ser Leu Pro Ala Ser Pro Pro Ala Ala Pro Pro Val Lys Arg 100 105 Met Thr Lys Asp Leu Ser Tyr Ala Gly Ser Lys Asn Gln Asn Phe Leu 120 Leu Ala Phe Ser Phe Val Ala Ser Pro Ala Pro Ala Leu Pro Val Ser 135 His Pro Gly Pro Arg Leu Glu Ala Ser Leu His Leu Ser Tyr Cys Phe 150 155

Lys Pro Lys Phe Thr Val Ser Val Gly Gln Asp Leu Leu Ser Pro

Pro Leu Leu His Pro Pro 180

100

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<210> 530
<211> 183
<212> PRT
<213> Homo sapiens '
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<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
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<400> 530
Ala Leu Val Leu Gly Xaa Lys Ser Val Arg Met Ala Ser Ser Arg Met
                                     10
Thr Arg Arg Asp Pro Leu Thr Asn Lys Val Ala Leu Val Thr Ala Ser
                                 25
Thr Asp Gly Ile Gly Phe Ala Ser Pro Gly Val Trp Pro Arg Thr Gly
                             40
Pro Arg Gly Arg Gln Gln Pro Glu Ala Ala Glu Cys Gly Pro Gly Gly
Gly Thr Leu Gln Gly Glu Gly Leu Ser Val Thr Gly Thr Cys Xaa Xaa
 65
Xaa Gly Lys Ala Glu Asp Arg Glu Arg Leu Val Ala Thr Ala Val Lys
                 85
                                     90
Leu His Gly Gly Ile Asp Ile Leu Val Ser Asn Ala Ala Val Asn Pro
```

Phe Phe Gly Ser Ile Met Asp Val Thr Glu Glu Val Trp Asp Lys Leu 115 Trp Met Asp Lys Glu Lys Glu Glu Ser Met Lys Glu Thr Leu Arg Ile 135 140 Arg Arg Leu Gly Glu Pro Glu Asp Cys Ala Gly Ile Val Ser Phe Leu 150 155 Cys Ser Glu Asp Ala Ser Tyr Ile Thr Gly Glu Thr Val Val Gly 170 Gly Gly Thr Pro Ser Arg Leu 180 <210> 531 <211> 129 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (89) . <223> Kaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (103) <223> Xaa equals any of the naturally occurring L-amino acids <400> 531 Asn Ser Ala Pro Leu Ser Pro Thr Gly Leu Gly Gln Gly His Thr Gly 5 10 His Val Arg Phe Leu Ala Ala Val Gln Leu Pro Asp Gly Phe Asn Leu 25 Leu Cys Pro Thr Pro Pro Pro Pro Pro Asp Thr Gly Pro Glu Lys Leu 40 Pro Ser Leu Glu His Arg Asp Ser Pro Trp His Arg Gly Pro Ala Pro Ala Arg Pro Lys Met Leu Val Ile Ser Gly Gly Asp Gly Tyr Glu Asp 70 75 Phe Arg Leu Ser Ser Gly Gly Kaa Ala Val Arg Leu Trp Val Glu

Thr Thr Ala Gln Thr Thr Xaa Ser Cys Gly Gly Cys Asp Pro Val Cys 100 105 110

Arg Gly Pro Gly Leu Ala Arg Pro Pro Ala Phe Ser Leu Leu Ala Ser 115 120 125

Pro

<210> 532

<211> 91

<212> PRT

<213> Homo sapiens

<400> 532

Gly Ala Ile Ala Ser Ser Gly Pro Thr Gly Gly Arg Val Arg Lys His
1 5 10 15

Gln Leu Leu Pro Gly Ala Val Arg Glu Trp Glu Gln Leu Trp Ala Pro 20 25 30

His Phe Arg Gln Val Leu Pro Lys Pro Ser Asp Ala Val Arg Pro Gly  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Leu Pro Val Val Leu Phe Arg Leu Cys Phe Gln Asn Ala Phe Ile Ser 50 55 60

Ser Val Pro Phe Gly Pro His Lys Ser Pro Trp Gly Val Gly Gly 65 70 75. 80

Leu Cys Arg His Pro His Phe Lys Ala Gly Ser 85 90

<210> 533

<211> 67

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 533

Asn Leu Cys Gln Val Gln Pro Thr Arg Leu Tyr Ser Ser Leu His Ser 1 5 10 15

WO 00/55173 PCT/US00/05881

486

Gly Leu His His Val Arg Gln Val Thr Gln Lys Ser Tyr Lys Val Ser 20 \$25\$ 30

Thr Ser Gly Pro Arg Ala Phe Ser Ser Arg Ser Tyr Thr Ser Gly Pro
35 40 45

Gly Ser Arg Ile Ser Ser Ser Ala Phe Ser Arg Val Gly Kaa Ser 50 60

Gly Gly Ala 65

<210> 534

<211> 144

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 534

Phe Asn Arg Arg Tyr Pro Lys Ile Gln Phe Ser Leu Ser Thr Gly Pro 1 5 10 15

Ser Gly Thr Met Leu Asp Gly Val Leu Glu Gly Lys Leu Asn Ala Ala 20 25 30

Phe Ile Asp Gly Pro Ile Asn His Thr Ala Ile Asp Gly Ile Pro Val 35 40 45

Tyr Arg Glu Glu Leu Met Ile Val Thr Pro Gln Gly Tyr Ala Pro Val 50 55 60

Thr Arg Ala Ser Gln Val Asn Gly Ser Asn Ile Tyr Ala Phe Arg Ala 65 70 75 80

As Cys Ser Tyr Arg Arg His Phe Glu Ser Trp Phe His Ala Asp Gly  $85 \hspace{1cm} 90 \hspace{1cm} 95$ 

Ala Ala Pro Gly Thr Ile His Glu Met Glu Ser Tyr His Gly Met Leu 100 105 110

Ala Cys Val Ile Ala Gly Ala Gly Ile Ala Leu Ile Pro Arg Ser Met
115 120 125

Leu Glu Ser Met Pro Gly His His Gln Val Glu Xaa Xaa Ala Val Ser 130 135 140

<210> 535

<211> 175

<212> PRT

<213> Homo sapiens

<400> 535

Arg Ala Pro Ala Arg Ile Ser Gly Gly Gly Ser Ala Met Val Gly Gly
1 5 10 15

Gly Gly Val Gly Gly Gly Leu Leu Glu Asn Ala Asn Pro Leu Ile Tyr 20 25 30

Gln Arg Ser Gly Glu Arg Pro Val Thr Ala Gly Glu Glu Asp Glu Gln 35 40 45

Val Pro Asp Ser Ile Asp Ala Arg Glu Ile Phe Asp Leu Ile Arg Ser 50 55 60

Ile Asn Asp Pro Glu His Pro Leu Thr Leu Glu Glu Leu Asn Val Val 65 70 75 80

Glu Gln Val Arg Val Gln Val Ser Asp Pro Glu Ser Thr Val Ala Val 85 90 95

Ala Phe Thr Pro Thr Ile Pro His Cys Ser Met Ala Thr Leu Ile Gly 100 105 110

Leu Ser Ile Lys Val Lys Leu Leu Arg Ser Leu Pro Gln Arg Phe Lys 115 120 125

Met Asp Val His Ile Thr Pro Gly Thr His Ala Ser Glu His Ala Val 130 135 140

Asn Lys Gln Leu Ala Asp Lys Glu Arg Val Ala Ala Ala Leu Glu Asn 145 150 155 160

Thr His Leu Leu Glu Val Val Asn Gln Cys Leu Ser Ala Arg Ser 165 170 175 WO 00/55173 PCT/US00/05881

488

<210> 536

<211> 148

<212> PRT

<213> Homo sapiens

<400> 536

Gly Trp His Arg Thr His His Arg Gly Arg His Gln Ala Arg Glu Ala  $1 \ 5 \ 10 \ 15$ 

Glu Glu Glu Ala Trp Ala Ala Ala Glu Pro Ile Lys Lys Val Arg Lys 20 25 30

Ser Leu Ala Leu Asp Ile Val Asp Glu Asp Val Lys Leu Met Met Ser 35 40 45

Thr Leu Pro Lys Ser Leu Ser Leu Pro Thr Thr Ala Pro Ser Asn Ser 50 55 60

Ser Ser Leu Thr Leu Ser Gly Ile Lys Glu Asp Asn Ser Leu Leu Asn 65 70 75 80

Gln Gly Phe Leu Gln Ala Lys Pro Glu Lys Ala Ala Val Ala Gln Lys 85 90 95

Pro Arg Ser His Phe Thr Thr Pro Ala Pro Met Ser Ser Ala Trp Lys 100 105 110

Thr Val Ala Cys Gly Gly Thr Arg Asp Gln Leu Phe Met Gln Glu Lys

Ala Arg Gln Leu Leu Gly Arg Leu Lys Pro Ser His Thr Ser Arg Thr 130 135 140

Leu Ile Leu Ser 145

<210> 537

<211> 70

<212> PRT

<213> Homo sapiens

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<222> (41)

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Thr Tyr Lys Glu Ala Phe Arg Lys Asp Met Ile Arg Trp Gly Glu Glu

Lys Arg Gln Ala Asp Pro Gly Phe Phe Cys Arg Lys Ile Val Glu Gly

Ile Ser Gln Pro Ile Trp Leu Val Ser Asp Thr Arg Arg Val Ser Asp

105

. 85

WO 00/55173

## PCT/US00/05881

490

Ile Gln Trp Phe Arg Glu Ala Tyr Gly Ala Val Thr Gln Thr Val Arg 135 Val Val Ala Leu Glu Gln Ser Arg Gln Gln Arg Gly Trp Val Phe Thr Pro Gly Val Asp Asp Ala Glu Ser Glu Cys Gly Leu Asp Asn Phe Gly 170 Asp Phe Asp Trp Val Ile Glu Asn His Gly Val Glu Gln Arg Leu Glu 185 Glu Gln Leu Glu Asn Leu Ile Glu Phe Ile Arg Ser Arg Leu 200 <210> 539 <211> 350 <212> PRT <213> Homo sapiens Ser Thr Leu Ile Ala Phe Ile Val Ile Ser Thr Leu Phe Pro Leu Leu Asp Met Thr Glu Ile Tyr Phe Ser Leu Leu Asp Glu Ile Val Asp Thr Leu Gly Glu Gly Ala Phe Gly Lys Val Val Glu Cys Ile Asp His Lys 40 Ala Gly Gly Arg His Val Ala Val Lys Ile Val Lys Asn Val Asp Arg Tyr Cys Glu Ala Ala Arg Ser Glu Ile Gln Val Leu Glu His Leu Asn Thr Thr Asp Pro Asn Ser Thr Phe Arg Cys Val Gln Met Leu Glu Trp 85 90 Phe Glu His His Gly His Ile Cys Ile Val Phe Glu Leu Leu Gly Leu Ser Thr Tyr Asp Phe Ile Lys Glu Asn Gly Phe Leu Pro Phe Arg Leu

120

135

130

Asp His Ile Arg Lys Met Ala Tyr Gln Ile Cys Lys Ser Val Asn Phe

140 .

Leu 145		Ser	Asn	Lys	150		His	Thr	Asp	155		Pro	Glu	Asn	Ile 160
Leu	Phe	· Val	Gln	Ser 165		туr	Thr	Glu	Ala 170		Asn	Pro	Lys	Ile 175	Lys
Arg	Asp	Glu	Arg 180		Leu	Ile	Asn	Pro 185	Asp	Ile	Lys	Val	Val 190	Asp	Phe
Gly	Ser	Ala 195		Туг	Asp	Asp	Glu 200		His	Ser	Thr	Leu 205	Val	Ser	Thr
Arg	His 210	Tyr	Arg	Ala	Pro	Glu 215	Val	Ile	Leu	Ala	Leu 220	Gly	Trp	Ser	Gln
Pro 225	Cys	Asp	Val	Trp	Ser 230	Ile	Gly	Cys	Ile	Leu 235	Ile	Glu	Туг	Tyr	Leu 240
Gly	Phe	Thr	Val	Phe 245	Pro	Thr	His	Asp	Ser 250	Lys	Glu	His	Leu	Ala 255	Met
Met	Glu	Arg	Ile 260	Leu	Gly	Pro	Leu	Pro 265	Lys	His	Met	Ile	Gln 270	Lys	Thr
Arg	Lys	Arg 275	Lys	Tyr	Phe	His	His 280	Asp	Arg	Leu	Asp	Trp 285	Asp	Glu	His
Ser	Ser 290	Ala	Gly	Arg	Tyr	Val 295	Ser	Arg	Arg	Суѕ	Lys 300	Pro	Leu	Lys	Glu
Phe 305	Met	Leu	Ser	Gln	Asp 310	Val	Glu	His	Glu	Arg 315	Leu	Phe	Asp	Leu	Ile 320
Gln	Lys	Met	Leu	Glu 325	Туг	Asp	Pro	Ala	Lys 330	Arg	Ile	Thr	Leu	Arg 335	Glu
Ala	Leu	Lys	His 340	Pro	Phe	Phe	Asp	Leu 345	Leu	Lys	Lys	Ser	Ile 350		

<210> 540

<211> 324

<212> PRT

<213> Homo sapiens

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<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

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Gln Ala Thr Met Gly Asn Val Leu Ala Ala Ser Ser Pro Pro Ala Gly
                                     10
Pro Pro Pro Pro Pro Ala Pro Ala Leu Val Gly Leu Pro Pro Pro
             20
                                 25
Pro Ser Pro Pro Gly Phe Thr Leu Pro Pro Leu Gly Gly Ser Leu Gly
                             40
Ala Gly Thr Ser Thr Xaa Arg Xaa Ser Glu Arg Thr Pro Gly Ala Ala
                         55
Thr Ala Ser Ala Ser Gly Ala Ala Glu Asp Gly Ala Cys Gly Cys Leu
                     70
Pro Asn Pro Gly Thr Phe Glu Glu Cys His Arg Lys Cys Lys Glu Leu
                                     90
Phe Pro Ile Gln Met Glu Gly Val Lys Leu Thr Val Asn Lys Gly Leu
```

Ser	Asr	His	s Ph∈	Glr	ı Val	. Asn	His 120		· Val	Ala	Leu	Ser 125		Ile	Gly
Glu	Ser		туг	His	Phe	Gly 135		Thr	туг	· Val	. Gly 140		Lys	Gln	Leu
Ser 145	Pro	Thr	Glu	Ala	Phe 150		Val	Leu	Val	Gly 155		Met	Asp	Asn	Ser 160
Gly	Ser	Leu	Asn	Ala 165		Val	Ile	His	Gln 170		Gly	Pro	Gly	Leu 175	-
Ser	Lys	Met	Ala 180		Gln	Thr	Gln	Gln 185		Lys	Phe	Val	Asn 190	Trp	Gln
Val	Asp	Gly 195	Glu	Tyr	Arg	Gly	Ser 200	Asp	Phe	Thr	Ala	Ala 205	Val	Thr	Leu
Gly	Asn 210	Pro	Asp	Val	Leu	Val 215	Gly	Ser	Gly	Ile	Leu 220	Val	Ala	His	Tyr
Leu 225	Gln	Ser	·Ile	Thr	Pro 230	Cys	Leu	Ala	Leu	Gly 235	Gly	Glu	Leu	Val	Tyr 240
His	Arg	Arg	Pro	Gly 245	Glu	Glu	Gly	Thr	Val 250	Met	Ser	Leu	Ala	Gly 255	Lys
туг	Thr	Leu	Asn 260	Asn	Trp	Leu	Ala	Thr 265	Val	Thr	Leu	Gly	Gln 270	Ala	Gly
Met	His	Ala 275	Thr	Tyr	Tyr	His	Lys 280	Ala	Ser	Asp	Gln	Leu 285	Gln	Val	Gly
Val	Glu 290	Phe	Glu	Ala	Ser	Thr 295	Arg	Xaa	Gln	Asp	Thr 300	Ser	Val	Ser	Xaa
Xaa 305	Val	Pro	Ala	Trp	Asn 310	Leu	Pro	Lys	Gly	Gln 315	Pro	Xaa	Leu	Ser	Lys 320
Xaa	Leu	Leu	Gly												

<210> 541

<211> 204

<212> PRT

<213> Homo sapiens

<400> 541

WO 00/55173 PCT/US00/05881

494

Arg Gly Pro Thr Phe Thr Pro Glu Ile Met Ala Ala Glu Asp Val Val Ala Thr Gly Ala Asp Pro Ser Asp Leu Glu Ser Gly Gly Leu Leu His 25 Glu Ile Phe Thr Ser Pro Leu Asn Leu Leu Leu Gly Leu Cys Ile Phe Leu Leu Tyr Lys Ile Val Arg Gly Asp Gln Pro Ala Ala Ser Gly 55 Asp Ser Asp Asp Asp Glu Pro Pro Pro Leu Pro Arg Leu Lys Arg Arg 70. Asp Phe Thr Pro Ala Glu Leu Arg Arg Phe Asp Gly Val Gln Asp Pro 90 Arg Ile Leu Met Ala Ile Asn Gly Lys Val Phe Asp Val Thr Lys Gly 105 Arg Lys Phe Tyr Gly Pro Glu Gly Pro Tyr Gly Val Phe Ala Gly Arg 120 Asp Ala Ser Arg Gly Leu Ala Thr Phe Cys Leu Asp Lys Glu Ala Leu 135 Lys Asp Glu Tyr Asp Asp Leu Ser Asp Leu Thr Ala Ala Gln Glu 155 145 Thr Leu Ser Asp Trp Glu Ser Gln Phe Thr Phe Lys Tyr His His Val 170 Gly Lys Leu Leu Lys Glu Gly Glu Pro Thr Val Tyr Ser Asp Glu 180 185 Glu Glu Pro Lys Asp Glu Ser Ala Arg Lys Asn Asp 195 200

<210> 542

<211> 193

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (183)

<223> Xaa equals any of the naturally occurring L-amino acids

<40	0> 5	42													
Pro 1	Ala	Tyr	Ser	Leu 5	Gly	Leu	Leu	Lys	Ser 10	Val	Leu	Asp	Gly	Gly 15	Gly
Ala	Gly	Ala	His 20	Gln	Ala	Arg	Ser	Asn 25	Pro	Ser	Cys	Met	туr 30	Pro	Gln
Gly	Thr	Phe 35	Val	Ile	Pro	Leu	Leu 40	Val	Thr	Ala	His	Arg 45	Asp	Pro	Thr
Gln	Phe 50	Lys	Asp	Pro	Asp	Cys 55	Phe	Asn	Pro	Thr	Asn 60	Phe	Leu	Asp	Lys
Gly 65	Lys	Phe	Gln	Gly	Asn 70	Asp	Ala	Phe	Met	Pro 75	Phe	Ala	Ser	Gly	Ala 80
Gly	Arg	Gly	Gly	Arg 85	Gly	Pro	Ala	Trp	Thr 90	Gly	Ser	Gly	Val	Pro 95	Gly
Ala	His	Cys	Ala 100	Pro	Val	туr	Pro	Ala 105	Lys	Gln	Met	Cys	Leu 110	Gly	Thr
Gly	Leu	Ala 115	His	Ser	Gly	Ile	Phe 120	Leu	Phe	Leu	Thr	Ala 125	Thr	Leu	Gln
Arg	Phe 130	Суs	Leu	Leu	Pro	Val .135	Val	Arg	Pro	Gly	Thr 140	Ile	Asn	Leu	Thr
Cys 145	Ser	Ala	Leu	Ala	Trp 150	Ala	Val	Ser	Pro	Gln 155	Thr	Ser	Ser	Ser	Ser 160
Gln	Trp	Pro	Ala	Glu 165	Val	Arg	Leu	His	Туг 170	Gly	Gly	Leu	Thr	Gly 175	Pro
Gln	Thr	Ser	Ile 180	Pro	Ser	Xaa	Val	Asn 185	Lys	Gly	Pro	Lys	Leu 190	Gln	Lys
T.ve															

<210> 543

<211> 352

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<2	20>														
<2	21>	SITE													
<2	22>	(154	)												
<2	23>	Xaa	equa	ls a	ny o	f th	e na	tura	lly	occu	rrin	g L-	amin	o ac	ids
	20>														
		SITE													
		(167	•												
<2	23>	Xaa	equa.	ls a	ny o	E the	e na	tura	lly	occu	rrin	g L-a	amino	ac.	ids
	00>														
Se	r Th	r Va	l Ar			Gly	/ Arc	g Pro	Th.	r Ar	g Pro	o Met	: Ala	Ala	a Glu
	1				5				1	0				15	5
Glı	u Pro	o Gli	n Glr 20	Gli	n Lys	Glr	ı Glu	1 Pro		u Gl	y Sei	Asp	Ser 30		ı Vai
Lei	ı Thi	. Va	l Trp	Pro	Mot	Mot		. D		- M	. <b>.</b> .	_	_		
		35	5		,	net	40		) Se	ı ıı	, re	45		Thr	: Glu
Phe	Ser 50	Lys	Arg	Leu	Leu	Cys 55		Thr	Lei	ı Tr	Суз 60		Ser	Gly	Tr
Ser	Ser	Arc	ı Ser	- Тъг	· Thr	7		. 14-4	· -						
65	,		j Ser		70	ALG	ser	met	Let	75		Thr	Thr	Ser	80 80
Asn	Arg	Arg	Ser	Arg 85	Thr	Ser	Thr	Lys	Ser 90		Arg	Thr	Ser	Ala 95	-
Pro	Gly	Leu	Thr 100	Ala	Thr	Val	Ser	Ile 105	Gly	Leu	Ser	Asp	Ser 110	Pro	Thr
Trp	Arg	His 115	Cys	Trp	Met	Thr	Ala 120	Arg	Ser	Cys	Ser	Gly 125	Glu	Lys	Gly
Gly	His 130	Trp	Ala	Pro	Arg	Gln 135	Val	Gly	Val	туr	Leu 140	Leu	Pro	Gly	Arg
Val 145	Gly	Cys	Val	Ser	Ser 150	Arg	Val	Ser	Xaa	Ser 155	Phe	Pro	Gly	Asp	Gly 160
Leu	Asp	Ser	Gly	Leu 165	Ala	Xaa	Arg	Gly	Ser 170	Ala	Val	Ser	Ala	Leu 175	Ala
Ser	Gly	Leu	Val 180	Glu	Glu	Pro	Met	Leu 185	Gly	Pro	Pro	Phe	Нis 190	Pro	Thr
Pro	Arg	Phe 195	Lys	Ala	Val	Ser	Ala 200	Lys	Ser	Lys	Glu	Asp 205	Leu	Val	Ser

Gln	Gly 210	Phe	Thr	Glu	Phe	Thr 215	Ile	Glu	Asp	Phe	His 220		Thr	Phe	Met
Asp 225	Leu	Ile	Glu	Gln	Val 230	Glu	Lys	Gln	Thr	Ser 235	Val	Ala	Asp	Leu	Let 240
Ala	Ser	Phe	Asn	Asp 245	Gln	Ser	Thr	Ser	Asp 250	Tyr	Leu	Val	Val	Tyr 255	Leu
Arg	Leu	Leu	Thr 260	Ser	Gly	Tyr	Leu	Gln 265	Arg	Glu	Ser	Lys	Phe 270	Phe	Glu
His	Phe	Ile 275	Glu	Gly	Gly	Arg	Thr 280	Val	Lys	Glu	Phe	Cys 285	Gln	Gln	Glu
Val	Glu 290	Pro	Met	Cys	Lys	Glu 295	Ser	Asp	His	Ile	His 300	Ile	Ile	Ala	Leu
Ala 305	Gln	Ala	Leu	Ser	Val 310	Ser	Ile	Gln	Val	Glu 315	Tyr	Met	Asp	Arg	Gly 320
Glu	Gly	Gly	Thr	Thr 325	Asn	Pro	His	Ile	Phe 330	Pro	Glu	Gly	Ser	Glu 335	Pro
Lys	Val	Tyr	Leu 340	Leu	Tyr	Arg	Pro	Gly 345	His	Tyr	Asp	Ile	Leu 350	Tyr	Lys

<210> 544 <211> 240 <212> PRT <213> Homo sapiens

<400> 544

Ser Thr His Ala Ser Glu Met Ala Glu Arg Gly Tyr Ser Phe Ser Leu  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Thr Thr Phe Ser Pro Ser Gly Lys Leu Val Gln Ile Glu Tyr Ala Leu 20 25 30

Ala Ala Val Ala Gly Gly Ala Pro Ser Val Gly Ile Lys Ala Ala Asn 35 40 45

Gly Val Val Leu Ala Thr Glu Lys Lys Gln Lys Ser Ile Leu Tyr Asp 50 55 60

Glu Arg Ser Val His Lys Val Glu Pro Ile Thr Lys His Ile Gly Leu

WO 00/55173

## PCT/US00/05881

498

65	'				70	)				75	5				80
Val	Tyr	Ser	Gly	Met 85	Gly	Pro	Asp	туг	Arg 90		Leu	Va]	. His	Arg 95	
Arg	Lys	Leu	Ala 100	Gln	Gln	Tyr	Tyr	Leu 105		Туг	Gln	Glu	Pro		Pro
Thr	Ala	Gln 115	Leu	Val	Gln	Arg	Val 120		Ser	Val	Met	Gln 125		Tyr	Thr
Gln	Ser 130	Gly	Gly	Val	Arg	Pro 135		Gly	Val	Ser	Leu 140	Leu	Ile	Cys	Gly
Trp 145	Asn	Glu	Gly	Arg	Pro 150	туг	Leu	Phe	Gln	Ser 155	Asp	Pro	Ser	Gly	Ala 160
Tyr	Phe	Ala	Trp	Lys 165	Ala	Thr	Ala	Met	Gly 170	Lys	Asn	Tyr	Val	Asn 175	Gly
Lys	Thr	Phe	Leu 180	Glu	Lys	Arg	Туг	Asn 185	Glu	Asp	Leu	Glu	Leu 190	Glu	Asp
Ala	Ile	His 195	Thr	Ala	Ile	Leu	Thr 200	Leu	Lys	Glu	Ser	Phe 205	G1u	Gly	Gln
Met	Thr 210	Glu	Asp	Asn	Ile	Glu 215	Val	Gly	Ile	Cys	Asn 220	Glu	Ala	Gly	Phe
Arg 225	Arg	Leu	Thr	Pro	Thr 230	Glu	Val	Lys	Asp	Туг 235	Leu	Ala	Ala		Ala 240

<210> 545 <211> 181 <212> PRT <213> Homo sapiens

<400> 545

Arg Cys Ile Leu Tyr Thr Gly Phe Met Leu Gly Ala Gln Arg Glu Val 1 5 10 15

Asp Ser Arg Leu Leu Ala Leu Pro Gly Arg Lys Val Pro Thr Ser Trp 20 25 30

Trp Asp Asp Leu Phe Lys Gly Ala Lys Glu His Gly Ala Val Ala Val 35 40 45

Glu	Arg 50	Val	Thr	Lys	Ser	Pro 55	Gly	Glu	Thr	Ser	Lys 60	Pro	Arg	Pro	Ph
Ala 65	Gly	Gly	Gly	Tyr	Arg 70	Leu	Gly	Ala	Ala	Pro 75	Glu	Glu	Glu	Ser	A1.
Tyr	Val	Ala	Gly	Glu 85	Lys	Arg	Gln	His	Ser 90	Ser	Gln	Asp	Val	His 95	Va:
Val	Leu	Lys	Leu 100	Trp	Lys	Ser	Gly	Phe 105	Ser	Leu	Asp	Asn	Gly 110	Glu	Lei
Arg	Ser	туг 115	Gln	Asp	Pro	Ser	Asn 120	Ala	Gln	Phe	Leu	G1u 125	Ser	Ile	Arq
Arg	Gly 130	Glu	Val	Pro	Ala	Glu 135	Leu	Arg	Arg	Leu	Ala 140	His	Gly	Gly	Glr
Val 145	Asn	Leu	Asp	Met	Glu 150	Asp	His	Arg	Asp	Glu 155	Asp	Phe	Val	Lys	Pro
Lys	Gly	Ala	Phe	Lys 165	Ala	Phe	Thr	Gly	Glu 170	Gly	Gln	Lys	Leu	Gly 175	Ser
Thr	Ala	Pro	Arg	Cys											

<210> 546 <211> 197 <212> PRT <213> Homo sapiens

180

<400> 546

Pro Arg Val Arg Arg Ala Arg Ala Ala Ala Gly Ser Ser His Ala l

Ala Met Ala Asp Ser Glu Leu Gln Leu Val Glu Gln Arg Ile Arg Ser 20 25 30

Phe Pro Asp Phe Pro Thr Pro Gly Val Val Phe Arg Asp Ile Ser Pro 35 40 45

Val Leu Lys Asp Pro Ala Ser Phe Arg Ala Ala Ile Gly Leu Leu Ala 50 55 60

Arg His Leu Lys Ala Thr His Gly Gly Arg Ile Asp Tyr Ile Ala Gly 65 70 75 80

Leu Asp Ser Arg Gly Phe Leu Phe Gly Pro Ser Leu Ala Gln Glu Leu Gly Leu Gly Cys Val Leu Ile Arg Lys Arg Gly Lys Leu Pro Gly Pro Thr Leu Trp Ala Ser Tyr Ser Leu Glu Tyr Gly Lys Ala Glu Leu Glu 120 Ile Gln Lys Asp Ala Leu Glu Pro Gly Gln Arg Val Val Val Asp 140 135 Asp Leu Leu Ala Thr Gly Gly Thr Met Asn Ala Ala Cys Glu Leu Leu Gly Arg Leu Gln Ala Glu Val Leu Glu Cys Val Ser Leu Val Glu Leu 170 165 Thr Ser Leu Lys Gly Arg Glu Lys Leu Ala Pro Val Pro Phe Phe Ser 190 Leu Leu Gln Tyr Glu 195 <210> 547 <211> 93 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (84) <223> Xaa equals any of the naturally occurring L-amino acids Glu Thr Gly Lys Glu Ser Lys Ala Leu Phe Leu Pro Phe Pro Gly Ser Val Tyr Ser Thr Ser Thr Gly Glu Ala Ser Gly Glu Gly Leu Ser Pro 25 Leu Pro His Leu His Glu Phe Trp Asn Ser Val Leu Leu Ala Ala Cys 40 Phe Gln Leu Pro Pro Ile Ser Ile Ala Ala Gly Ser Ser Cys Leu Phe Tyr Ser Val Ile Lys His Pro Ala Pro Thr Leu Ser Gln Arg Ser Ile

70

Leu Ile Leu Xaa Lys Lys Ile Tyr Glu Glu Lys Lys Lys 85 90

<210> 548

<211> 49

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 548

Gly Leu Gln Leu Xaa Ala His Ala Ala Gly Arg Val Pro Gly Cys Ala 1 5 10 15

Leu Gln Gly Leu Gly His Phe Leu Gln Glu Asn Lys Gln Leu Leu Arg 20 25 30

Asp Val Leu Ala Gln Glu Leu His Lys Pro Ala Phe Glu Gly Arg His 35 40 45

Ile

<210> 549

<211> 379

<212> PRT

<213> Homo sapiens

<400> 549

Val Ala Cys Cys Val Arg Ile Pro Gly Pro Pro Arg Arg Ser Gly Pro 1 5 10 15

Ala Met Ala Val Thr Ile Thr Leu Lys Thr Leu Gln Gln Gln Thr Phe
20 25 30

Lys Ile Arg Met Glu Pro Asp Glu Thr Val Lys Val Leu Lys Glu Lys
35 40 45

Ile Glu Ala Glu Lys Gly Arg Asp Ala Phe Pro Val Ala Gly Gln Lys 50 55 60

Leu Ile Tyr Ala Gly Lys Ile Leu Ser Asp Asp Val Pro Ile Arg Asp
65 70 75 80

fyr	Arg	Ile	Asp	Glu 85	Lys	Asn	Phe	Val	Val 90	Val	Met	Val	Thr	Lys 95	Thr
Lys	Ala	Gly	Gln 100	Gly	Thr	Ser	Ala	Pro 105	Pro	Glu	Ala	Ser	Pro 110	Thr	Ala
Ala	Pro	Glu 115	Ser	Ser	Thr	Ser	Phe 120	Pro	Pro	Ala	Pro	Thr 125	ser	Gly	Met
Ser	His 130	Pro	Pro	Pro	Ala	Ala 135	Arg	Glu	Asp	Lys	Ser 140	Pro	Ser	Glu	Glu
Ser 145	Ala	Pro	Thr	Thr	Ser 150	Pro	Glu	Ser	Val	Ser 155	Gly.	Ser	Val	Pro	Ser 160
Ser	Gly	Ser	Ser	Gly 165	Arg	Glu	Glu	Asp	Ala 170	Ala	Ser	Thr	Leu	Val 175	Thr
Gly	Ser	Glu	туг 180	Glu	Thr	Met	Leu	Thr 185	Glu	Ile	Met	Ser	Met 190	Gly	Tyr
Glu		Glu 195	Arg	Val	Val	Ala	Ala 200	Leu	Arg	Ala	Ser	Tyr 205	Asn	Asn	Pro
His	Arg 210		Val	Glu	Tyr	Leu 215	Leu	Thr	Gly	Ile	Pro 220	Gly	Ser	Pro	Glu
Pro 225	Glu	His	Gly	Ser	Val 230	Gln	Glu	Ser	Gln	Val 235		Glu	Gln	Pro	Ala 240
Thr	Glu	Ala	Gly	Glu 245	Asn	Pro	Leu	Glu	Phe 250		Arg	Asp	Gln	Pro 255	Gln
Phe	Gln	Asn	Met 260		Gln	Val	Ile	Gln 265	Gln	Asn	Pro	Ala	Leu 270	Leu	Pro
Ala	Leu	Leu 275		Gln	Leu	Gly	Gln 280		Asn	Pro	Gln	Leu 285	Leu	<b>Gl</b> n	Gln
Ile	Ser 290		His	Gln	Glu	Gln 295		Ile	Gln	Met	Leu 300		Glu	Pro	Pro
Gly 305		Leu	Ala	Asp	Ile 310	Ser	Asp	Val	Glu	Gly 315		Val	Gly	Ala	Ile 320
Gly	Glu	Glu	Ala	Pro 325		Met	Asn	Tyr	11e 330		val	Thr	Pro	Gln 335	Glu
Lys	Glu	Ala	11e		Arg	Leu	Lys	Ala 345		Gly	Phe	Pro	Glu 350	Ser	Leu

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Val Ile Gln Ala Tyr Phe Ala Cys Glu Lys Asn Glu Asn Leu Ala Ala
         355
                             360
 Asn Phe Leu Leu Ser Gln Asn Phe Asp Asp Glu
                         375
 <210> 550
. <211> 275
 <212> PRT
 <213> Homo sapiens
 <220>
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 <222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (235)
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<222> (260)
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<222> (272)
<223> Xaa equals any of the naturally occurring L-amino acids
Cys Ser Cys Lys Arg Kaa His Gln Gln Gln Val Leu Pro Pro Arg Gln
                                     10
Pro Ser Ala Leu Val Pro Ser Val Thr Glu Tyr Arg Leu Asp Gly His
             20
                                 25
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WO 00/55173 PCT/US00/05881

504

Thr	Ile	Ser 35		Leu	Ser	Arg	Ser 40		Arg	Gly	Glu	Leu 45		Pro	Ile
Ser	Pro 50		Thr	Glu	Val	Gly 55		Ser	Gly	Ile	Gly 60	Thr	Pro	Pro	Ser
Val 65	Leu	Lys	Arg	Gln	Arg 70	Lys	Arg	Arg	Val	Ala 75	Leu	Ser	Pro	Val	Thr 80
Glu	Asn	Ser	Thr	Ser 85	Leu	Ser	Phe	Leu	Asp 90	Ser	Cys	Asn	Ser	Leu 95	Thr
Pro	Lys	Ser	Thr 100	Pro	Val	Lys	Thr	Leu 105	Pro	Phe	Ser	Pro	Ser 110	Gln	Phe
		115					120				Leu	125			
	130					135					Val 140				
145					150					155	His				160
				165					170		Pro			175	
			180					185			Leu		190		
		195					200				Val	205			
	210					215					Arg 220				
225		-			230					235	Lys				240
				245					250		Lys			255	
TUL	Leu	rro	260	хаа	Leu	ser	Leu	Ala 265	Thr	Xaa	Ala	Pro	Cys 270	Lys	Xaa

Phe Gln Pro 275

<211> 161 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (158) <223> Xaa equals any of the naturally occurring L-amino acids Asn Leu Ala Ala Ala Ser Gly Gly Gly Pro Gln Ser Val Ser Gly Thr 10 Leu Leu Cys Glu Pro Val Leu Thr Met Phe Ala Thr Ser Gly Ala Val 25 30 Ala Ala Gly Lys Pro Tyr Ser Cys Ser Glu Cys Gly Lys Ser Phe Cys 40 Tyr Ser Ser Val Leu Leu Arg His Glu Arg Ala His Gly Gly Asp Gly 55 Arg Phe Arg Cys Leu Glu Cys Gly Glu Arg Cys Ala Arg Ala Ala Asp Leu Arg Ala His Arg Arg Thr His Ala Gly Gln Thr Leu Tyr Ile Cys 85 Ser Glu Cys Gly Gln Ser Phe Arg His Ser Gly Arg Leu Asp Leu His 105 Leu Gly Ala His Arg Gln Arg Cys Arg Thr Cys Pro Cys Arg Thr Cys 120 Gly Arg Arg Phe Pro His Leu Pro Ala Leu Leu His Arg Arg Arg 135 Gln His Leu Pro Glu Arg Pro Arg Arg Cys Pro Leu Cys Xaa Leu Arg ′ 155 150

<210> 552

Phe

<211> 405

<212> PRT

<213> Homo sapiens

<400> 552

Pr	o Ar	g Va	l Ar	g Ar	g Arg	g Ala	a Arç	g Gl	y Ar		g Va	l Ar	g Pro	Al.	
Gl	y Pr	o Va	1 Ar	g Arq	g Gly	/ Ala	a Ala	va: 2:		g Gl	y Ala	a Lei	a Arg		y Ala
Sei	r Lei	ı Gl 3	y His 5	s Gly	/ Ala	a Ala	a Ala 40		g Ala	a Gly	y Arg	g Pro		Cys	Val
Arg	9 His 50	s Se:	r Glu	ı Pro	Val	. Cys		Sei	. Asg	Ala	Ası 60		Туг	Ala	Asr
Leu 65	ı Cys	Gl:	n Lei	a Arg	Ala 70		ser	Arg	, Arg	Ser 75		Arç	, Leu	His	Arg 80
Pro	Pro	Va:	l Ile	val 85		Gln	Arg	Gly	Ala 90		Gly	Gln	Gly	G1n 95	
Asp	Pro	Ası	n Ser 100	Leu	Arg	His	Lys	Туг 105		Phe	lle	Ala	Asp	Val	Val
Glu	Lys	11e	e Ala	Pro	Ala	Val	Val 120	His	Ile	Glu	Leu	Phe 125		Lys	Leu
Pro	Phe 130	Ser	Lys	Arg	Glu	Val 135		Val	Ala	Ser	Gly 140	Ser	Gly	Phe	Ile
Val 145	Ser	Glu	Asp	Gly	Leu 150	Ile	Val	Thr	Asn	Ala 155	His	Val	Val	Thr	Asn 160
Lys	His	Arg	Val	Lys 165	Val	Glu	Leu	Lys	Asn 170	Gly	Ala	Thr	туг	Glu 175	Ala
Lys	Ile	Lys	Asp 180	Val	Asp	Glu	Lys	Ala 185	Asp	Ile	Ala	Leu	Ile 190	Lys	Ile
Asp	His	Gln 195	Gly	Lys	Leu	Pro	Val 200	Leu	Leu	Leu	Gly	Arg 205	Ser	Ser	Glu
Leu	Arg 210	Pro	Gly	Glu	Phe	Val 215	Val	Ala	Ile	Gly	Ser 220	Pro	Phe	Ser	Leu
Gln 225	Asn	Thr	Val	Thr	Thr 230	Gly	Ile	Val	Ser	Thr 235	Thr	Gln	Arg	Gly	Gly 240
Lys	Glu	Leu	Gly	Leu 245	Arg	Asn	Ser	Asp	Met 250	Asp	Tyr	Ile		Thr 255	Asp
Ala	Ile	Ile	Asn 260	Tyr	Gly .	Asn		Gly 265		Pro	Leu		Asn :	Leu	Asp

Gly	Glu	Val	Ile	Gly	Ile	Asn	Thr	Leu	Lys	Val	Thr	Ala	Gly	Ile	Ser
		275					280					285	_		

Phe Ala Ile Pro Ser Asp Lys Ile Lys Lys Phe Leu Thr Glu Ser His 290 295 300

Asp Arg Gln Ala Lys Gly Lys Ala Ile Thr Lys Lys Lys Tyr Ile Gly 305 310 315 320

Ile Arg Met Met Ser Leu Thr Ser Ser Lys Ala Lys Glu Leu Lys Asp 325 330 335

Arg His Arg Asp Phe Pro Asp Val Ile Ser Gly Ala Tyr Ile Ile Glu 340 345 350

Val Ile Pro Asp Thr Pro Ala Glu Ala Gly Gly Leu Lys Glu Asn Asp 355 360 365

Val Ile Ile Ser Ile Asn Gly Gln Ser Val Val Ser Ala Asn Asp Val 370 380

Ser Asp Val Ile Lys Arg Glu Ser Thr Leu Asn Met Val Val Arg Arg 385 390 395 400

Val Met Lys Ile Ser 405

<210> 553

<211> 107

<212> PRT

<213> Homo sapiens

<400> 553

Ala Gln Glu Asn Glu Glu Met Glu Gln Pro Met Gln Asn Gly Glu Glu l 5 10 15

Asp Arg Pro Leu Gly Gly Gly Glu Gly His Gln Pro Ala Gly Asn Arg 20 25 30

Arg Gly Gln Ala Arg Arg Leu Ala Pro Asn Phe Arg Trp Ala Ile Pro
35 40 45

Asn Arg Gln Ile Asn Asp Gly Met Gly Gly Asp Gly Asp Asp Met Glu 50 55 60

Ile Phe Met Glu Glu Met Arg Glu Ile Arg Arg Lys Leu Arg Glu Leu 65 70 75 80

Gln Leu Arg Asn Cys Leu Arg Ile Leu Met Gly Glu Leu Ser Asn His

WO 00/55173 PCT/US00/05881

508

85 90 95

His Asp His His Asp Glu Phe Cys Leu Met Pro 100 105

<210> 554

<211> 229

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 554

Gly Leu Ser Ala Glu Ser Thr Xaa Thr Ser Thr Met Pro Met Xaa Leu 1 5 10 15

Gly Tyr Trp Xaa Ile Arg Gly Leu Ala His Xaa Ile Arg Leu Leu 20 25 30

Glu Tyr Thr Asp Ser Ser Tyr Glu Glu Lys Lys Tyr Thr Met Gly Asp 35 40 45

Ala Pro Asp Tyr Asp Arg Ser Gln Trp Leu Asn Glu Lys Phe Lys Leu 50 55 60

Gly Leu Asp Phe Pro Asn Leu Pro Tyr Leu Ile Asp Gly Xaa His Lys

65 70 75 Ile Thr Gln Ser Asn Ala Ile Leu Arg Tyr Ile Ala Arg Lys His Asn 85 90 Leu Cys Gly Glu Ser Glu Lys Glu Gln Ile Arg Glu Asp Ile Leu Glu 105 Asn Gln Phe Met Asp Ser Arg Met Gln Leu Ala Lys Leu Cys Tyr Asp 120 Pro Asp Phe Glu Lys Leu Lys Pro Glu Tyr Leu Gln Ala Leu Pro Glu 135 Met Leu Lys Leu Tyr Ser Gln Phe Leu Gly Lys Gln Pro Trp Phe Leu 155 Gly Asp Lys Ile Thr Phe Val Asp Phe Ile Ala Tyr Asp Val Leu Glu 165 170 Arg Asn Gln Val Phe Glu Pro Ser Cys Leu Asp Ala Phe Pro Asn Leu 185 Lys Asp Phe Ile Ser Arg Phe Glu Gly Leu Glu Lys Ile Ser Ala Tyr 200 205 Met Lys Ser Ser Arg Phe Leu Pro Arg Pro Val Phe Thr Lys Met Ala 215 220 Val Trp Gly Asn Lys 225 <210> 555 <211> 106 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (59) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

<222> (72) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (98) <223> Xaa equals any of the naturally occurring L-amino acids Asn Val Ile Ser Val Asp Pro Asn Asp Gln Lys Lys Thr Ala Cys Tyr Asp Ile Asp Val Glu Val Asp Asp Thr Leu Lys Thr Gln Met Asn Ser 25 Phe Leu Leu Ser Thr Ala Ser Gln Gln Glu Ile Ala Thr Leu Asp Asn Lys Thr Met Thr Asp Val Val Gly Asn Gln Xaa Xaa Ser Ala Glu Leu 55 Ser Ser Thr Ser Ser Pro Gly Kaa Gly Gly Cys Val Pro Ile Leu Leu Leu Gln Gly Ala Ala Glu Thr Thr Arg Ile Arg Ala Ser Pro Gly Asn 85 90 Pro Xaa Tyr Ile Gly Pro Leu Pro Gln Pro 105

<210> 556

<211> 86

<212> PRT

<213> Homo sapiens

<400> 556

Gly Arg Ala Thr Lys Gln Asn Thr Thr Lys Pro Asn His Arg Ile Ile
1 5 10 15

Phe Asn Pro Thr Phe Tyr Thr Met Pro Gln Phe Pro Ile Thr Leu His  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Thr Ser Phe Cys Val Gln Leu Asn Cys Asn Cys Phe Leu Tyr Leu Glu 35 40 45

Arg Val Thr Ile Glu Leu Glu Thr Phe Tyr Ser Gly Arg Leu Gly Ser
50 55 60

Phe Trp Trp Asp Ser Val Gly Glu Arg Glu Glu Gly Glu Val Gly Gly

511

70 75 80 Leu Leu Pro Phe Arg Thr 85 <210> 557 <211> 565 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (57) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (71) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (75) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (82) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (118) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (120) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (552) <223> Xaa equals any of the naturally occurring L-amino acids <400> 557 Ala Ser Leu Thr Gly Thr Gln Ala Leu Pro Pro Leu Phe Ser Leu Gly

Tyr	His	Gln	Ser 20	Arg	Trp	Asn	Tyr	Arg 25	Asp	Glu	Ala	Asp	Val 30	Leu	Glu
Val	Asp	Gln 35	Gly	Phe	Asp	Asp	His 40		Leu	Pro	Cys	Asp 45	Val	Ile	Trp
Leu	Asp 50	Ile	Glu	His	Ala	Asp 55	Gly	Xaa	Arg	Туг	Phe 60	Thr	Trp	Asp	Pro
Ser 65	Arg	Phe	Pro	Gln	Pro 70	Xaa	Thr	Met	Leu	Xaa 75	Arg	Leu	Ala	Ser	Lys 80
Arg	Xaa	Lys	Leu	Val 85	Ala	Ile	Va1	Asp	Pro 90	His	Ile	Lys	Val	Asp 95	Ser
Gly	Tyr	Arg	Val 100	His	Glu	Glu	Leu	Arg 105	Asn	Leu	Gly	Leu	Туг 110	Val	Lys
Thr	Arg	Asp 115	Gly	Ser	Xaa	Tyr	Xaa 120	Gly	Trp	Cys	Trp	Pro 125	Gly	Ser	Ala
Gly	Туг 130	Pro	Asp	Phe	Thr	Asn 135	Pro	Thr	Met	Arg	Ala 140	Trp	Trp	Ala	Asn
Met 145	Phe	Ser	Tyr	Asp	Asn 150	Tyr	Glu	Gly	Ser	Ala 155	Pro	Asn	Leu	Phe	Val 160
Trp	Asn	Asp	Met	Asn 165	Glu	Pro	Ser	Val	Phe 170	Asn	Gly	Pro	Glu	Val 175	Thr
Met	Leu	Lys	Asp 180	Ala	Gln	His	Tyr	Gly 185	Gly	Trp	Glu	His	Arg 190	Asp	Val
His	Asn	Ile 195	туr	Gly	Leu	Tyr	Val 200	His	Met	Ala	Thr	Ala 205	Asp	Gly	Leu
Arg	Gln 210	Arg	Ser	Gly	Gly	Met 215	Glu	Arg	Pro	Phe	Val 220	Leu	Ala	Arg	Ala
Phe 225	Phe	Ala	Gly	Ser	Gln 230	Arg	Phe	Gly	Ala	Val 235	Trp	Thr	Gly	Asp	Asn 240
Thr	Ala	Glu	Trp	Asp 245	His	Leu	Lys	Ile	Ser 250	Ile	Pro	Met	Cys	Leu 255	ser
Leu	Gly	Leu	Val 260	Gly	Leu	Ser	Phe	Cys 265	Gly	Ala	Asp	Val	Gly 270	Gly	Phe
Phe	Lys	Asn 275	Pro	Glu	Pro	Glu	Leu 280	Leu	Val	Arg	Trp	Tyr 285	Gln	Met	Gly

Ala	Tyr 290		Pro	Phe	Phe	Arg 295		His	Ala	His	300		Thr	Gly	Arg
Arg 305		Pro	Trp	Leu	Leu 310	Pro	Ser	Gln	His	Asn 315		Ile	Ile	Arg	Asp 320
Ala	Leu	Gly	Gln	Arg 325	Tyr	Ser	Leu	Leu	Pro 330		Trp	Tyr	Thr	Leu 335	
Туr	Gln	Ala	His 340		Glu	Gly	Ile	Pro 345		Met	Arg	Pro	Leu 350		Val
Gln	Tyr	Pro 355		Asp	Val	Thr	Thr 360	Phe	Asn	Ile	Asp	Asp 365	Gln	туг	Leu
Leu	Gly 370		Ala	Leu	Leu	Val 375	His	Pro	Val	Ser	Asp 380	Ser	Gly	Ala	His
Gly 385	Val	Gln	Val	Туг	Leu 390	Pro	Gly	Gln	Gly	Glu 395	Val	Trp	Tyr	Asp	Ile 400
Gln	Ser	Tyr	Gln	Lys 405	His	His	Gly	Pro	Gln 410	Thr	Leu	Туг	Leu	Pro 415	Val
Thr	Leu	Ser	Ser 420	Ile	Pro	Val	Phe	Gln 425	Arg	Gly	Gly	Thr	Ile 430	Val	Pro
Arg	Trp	Met 435	Arg	Val	Arg	Arg	Ser 440	Ser	Glu	Cys	Met	Lys 445	Asp	Asp	Pro
	450				Ala	455					460				
465					Gly 470					475					480
				485	Phe				490					495	
			500		Gly		•	505				-	510		
Val	Val	Ile 515	Ile	Gly	Ala	Gly	Lys 520	Pro	Ala	Ala	Val	Val 525	Leu	Gln	Thr
	530					535					540				
Ser 545	Val	Leu	Val	Leu	Arg 550	Lys	Xaa	Gly	Ile	Asn 555	Val	Ala	Ser	Asp	Тгр 560

Ser Ile His Leu Arg

130

135

150

<210> 558 <211> 160 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (39) <223> Xaa equals any of the naturally occurring L-amino acids <400> 558 Arg Glu Ala Val Leu Pro Gln Ala Val Leu Arg His Pro Val Arg Thr Gln Arg Arg Glu His Arg Gly Arg Gly Leu Leu His Leu Arg Glu Ala Pro Gly Gly Ala Ala Xaa His Arg Pro His Arg Gly Pro Arg Gly Pro Ser Arg Gly Ala Glu Gly Glu Arg Pro Pro Glu Gly Pro Ser Arg Ala Ser Ser Val Thr Thr Phe Thr Gly Glu Pro Asn Thr Cys Pro Arg 65 70 Cys Ser Lys Lys Val Tyr Phe Ala Glu Lys Val Thr Ser Leu Gly Lys Asp Trp His Arg Pro Cys Leu Arg Cys Glu Arg Cys Gly Lys Thr Leu 105 110 Thr Pro Gly Gly His Ala Glu His Asp Gly Gln Pro Tyr Cys His Lys Pro Cys Tyr Gly Ile Leu Phe Gly Pro Lys Gly Val Asn Thr Gly Ala

Val Gly Ser Tyr Ile Tyr Asp Arg Asp Pro Glu Gly Lys Val Gln Pro

<210> 559

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Glý 1		Ile	Gly	Tyr 5		Val	Leu	Leu	Trp		Leu	Pro	Leu	Ile 15	
Phe	· `Gly	Leu	Ala 20		Gln	Ser	Glu	Asp 25	Leu	Ser	Val	Phe	Туг 30	Pro	Gly
Thr	Leu	Leu 35		Thr	Gly	His	Asp 40	Ile	Leu	Phe	Phe	Trp 45	Val	Ala	Arg
Met	Val 50	Met	Leu	Gly	Leu	Lys 55	Leu	Thr	Gly	Arg	Leu 60	Pro	Phe	Arg	Glu
Val 65	Tyr	Leu	His	Ala	Ile 70	Val	Arg	Asp	Ala	His 75	Gly	Arg	Lys	Met	Ser 80
Lys	Ser	Leu	Gly	Asn 85	Val	Ile	Asp	Pro	Leu 90	Asp	Val	Ile	Tyr	Gly 95	Ile
Ser	Leu	Gln	Gly 100	Leu	His	Asn	Gln	Leu 105	Leu	Asn	Ser	Asn	Leu 110	Asp	Pro
Ser	Glu	Val 115	Glu	Lys	Ala	Lys	Glu 120	Gly	Gln	Lys	Ala	Asp 125	Phe	Pro	Ala
Gly	Ile 130	Pro	Glu	Cys	Gly	Thr 135	Asp	Ala	Leu	Arg	Phe 140	Gly	Leu	Cys	Ala
Туг 145	Met	Ser	Gln	Gly	Arg 150	Asp	Ile	Asn	Leu	Asp 155	Val	Asn	Arg	Ile	Leu 160
Gly	Tyr	Arg	His	Phe 165	Cys	Asn	Lys	Leu	Trp 170	Asn	Ala	Thr	Lys	Phe 175	Ala

Leu Arg Gly Leu Gly Lys Gly Phe Val Pro Ser Pro Thr Ser Gln Pro 185

Gly Gly His Glu Ser Leu Val Asp Arg Trp Ile Arg Ser Arg Leu Thr 200

Glu Ala Val Arg Leu Ser Asn Gln Gly Phe Gln Ala Tyr Asp Phe Pro

Ala Val Thr Thr Ala Gln Tyr Ser Phe Trp Leu Tyr Glu Leu Cys Asp

235

230

Va	1 ту	r Le	eu Gl	u Cy 24	s Lei 5	ı Ly:	s Pro	o Va	1 Le		n Gly	y Val	L Asp	Gl: 255	n Val
Al	a Al	a Gl	u Cy 26	s Al O	a Aro	g Gli	n Thi	26		r Th	r Cys	Leu	270		Gly
Le	u Ar	g Le 27	u Le: 5	u Se	r Pro	Phe	280		Phe	e Val	l Thr	Glu 285		Leu	Phe
Gli	29	g Le O	u Pro	Are	g Arg	Met 295	Pro	Glr	a Ala	A Pro	300		Leu	Cys	Val
Th:	Pro	э ту	r Pro	Glı	Pro 310	Ser	Glu	Суз	Ser	315		Asp	Pro	Glu	Ala 320
Glu	ı Ala	a Ala	a Leu	325	Leu	Ala	Leu	Ser	330		Arg	Ala	Val	Arg 335	Ser
Leu	Arç	j Ala	340	Туг	Asn	Leu	Thr	Arg 345		Arg	Pro	Asp	Cys 350	Phe	Leu
Glu	Va]	. Ala 355	Asp	Glu	Ala	Thr	Gly 360	Ala	Leu	Ala	Ser	Ala 365	Val	Ser	Gly
Tyr	Val 370	Glr	Ala	Leu	· Ala	Ser 375	Ala	Gly	Val	Val	Ala 380	Val	Leu	Ala	Leu
Gly 385	Ala	Pro	Ala	Pro	Gln 390	Gly	Cys	Ala	Val	Ala 395	Leu	Ala	Ser	Asp	Arg 400
Cys	Ser	Ile	His	Leu 405	Gln	Leu	Gln	Gly	Leu 410	Val	Asp	Pro	Ala	Arg 415	Glu
Leu	Gly	Lys	Leu 420	Gln	Ala	Lys	Arg	Val 425	Glu	Ala	Gln	Arg	Gln 430	Ala	Gln
Arg	Leu	Arg 435	Glu	Arg	Arg	Ala	Ala 440	Ser	Gly	Tyr		Val 445	Lys	Val	Pro
Leu	Glu 450	Val	Gln	Glu	Ala	Asp 455	Glu	Ala	Lys	Leu	Gln 460	Gln	Thr	Glu	Ala
Glu 465	Leu	Arg	Lys	Val	Asp 470	Glu	Ala	Ile	Ala	Leu 475	Phe	Gln .	Lys i		Leu 480

<211> 96 <212> PRT <213> Homo sapiens

<400> 560

Ala Cys Leu Glu Arg Cys Gly Ser Trp Arg Pro His Arg Pro Met Thr
1 5 10 15

Ser Gly Ala Arg Glu Asn Pro Ile Gln Val Pro Arg Ser Ser Leu Glu 20 25 30

Ala Thr Gly Ala Gln Glu Arg Trp Ala Glu Asp Val Pro Tyr Pro Thr 35 40 45

Thr Arg Ala Val Ser Leu Pro Pro Ser Leu Gly Val Gly Ser Thr Gly 50 55 60

Met Ser Ser Ser Arg Phe Leu Gly Ser Leu Gly Lys His Gly Arg Leu 65 70 75 80

Asp Ser Ser Arg Arg Ala Arg Leu Trp Gly Arg Gly Gly Gly 85 90 95

<210> 561

<211> 60

<212> PRT

<213> Homo sapiens

<400> 561

Ile Arg His Glu Ser Ser Ile Leu Ser Val Leu Phe Ile Arg Phe Leu l 5 10 15

Lys Cys Ala Asp Pro Phe Lys Thr Pro Ala Tyr Leu Cys Asn Lys Glu 20 25 30

Lys Tyr Ser Lys Ile Leu Pro Ser Phe Ser His Thr Val Leu Lys Met
35 40 45

Leu Gln Asp Gln Ile Ile Ala His Lys Ile Arg Ser 50 55 60

<210> 562

<211> 241

<212> PRT

<213>	Homo	sapiens

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Ser Ser Met Ala Lys Pro Cys Gly Val Arg Leu Ser Gly Glu Ala Arg

Lys Gln Val Glu Val Phe Arg Gln Asn Leu Phe Gln Glu Ala Glu Glu 25

Phe Leu Tyr Arg Phe Leu Pro Gln Lys Ile Ile Tyr Leu Asn Gln Leu

Leu Gln Glu Asp Ser Leu Asn Val Ala Asp Leu Thr Ser Leu Arg Ala

Pro Leu Asp Ile Pro Ile Pro Asp Pro Pro Pro Lys Asp Asp Glu Met 70

Glu Thr Asp Lys Gln Glu Lys Lys Glu Val Pro Lys Cys Gly Phe Leu 90

Pro Gly Asn Glu Lys Val Leu Ser Leu Leu Ala Leu Val Lys Pro Glu

Val Trp Thr Leu Lys Glu Lys Cys Ile Leu Val Ile Thr Trp Ile Gln 120

His Leu Ile Pro Lys Ile Glu Asp Gly Asn Asp Phe Gly Val Ala Ile 135

Gln Glu Lys Val Leu Glu Arg Val Asn Ala Val Lys Thr Lys Val Glu 150 155

Ala Phe Gln Thr Thr Ile Ser Lys Tyr Phe Ser Glu Arg Gly Asp Ala

Val Ala Lys Ala Ser Lys Glu Thr His Val Met Asp Tyr Arg Ala Leu 180 185

Val His Glu Arg Asp Glu Ala Ala Tyr Gly Glu Leu Arg Ala Met Val 200

Leu Asp Leu Arg Ala Phe Tyr Ala Glu Leu Tyr His Ile Ile Ser Ser 215

Asn Leu Glu Lys Ile Val Asn Pro Lys Gly Glu Glu Lys Pro Ser Met 235 230

Tyr

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				s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<40	0> 5	63													
Leu 1	Gly	Ser	Ile	Gln 5		Met	Gln	Ala	Val 10		Asn	Ala	Gly	Ser 15	
Phe	Leu	Arg	Ser 20		Thr	Trp	Pro	Gln 25	Thr	Ala	Gly	Arg	Val 30	Val	Ala
Arg	Thr	Pro 35		Gly	Thr	Ile	Cys 40		Gly	Ala	Arg	Gln 45	Leu	Gln	Asp
Ala	Ala 50		Lys	Gln	Lys	Val 55	Glu	Gln	Asn	Ala	Ala 60	Pro	Ser	His	Thr
Lys 65	Phe	Ser	Ile	Tyr	Pro 70	Pro	Ile	Pro	Gly	Glu 75	Glu	Ser	Ser	Leu	Arg 80
ľrp	Ala	Gly	Lys	Lys 85	Phe	Glu	Glu	Ile	Pro 90	Ile	Ala	His	Ile	Lys 95	Ala
Ser	His	Asn	Asn 100	Thr	Gln	Ile	Gln	Val 105	Val	Ser	Ala	Ser	Asn 110	Glu	Pro
eu	Ala	Phe 115	Ala	Ser	Cys	Gly	Thr 120	Glu	Gly	Phe	Arg	Asn 125	Ala	Lys	Lys
ly	Thr 130	Gly	Ile	Ala	Ala	Gln 135	Thr	Ala	Gly	Ile	Ala 140		Ala	Ala	Arg
aa 45	Lys	Gln	Lys	Gly	Val 150	Ile	His	Ile	Arg	Val 155	Val	Val	Lys	Gly	Leu 160
1у	Pro	Gly	Arg	Leu 165	Ser	Ala	Met	His	Gly 170	Leu	Ile	Met	Gly	Gly 175	Leu
lu	Val	Ile	Ser 180	Ile	Thr	Asp	Asn	Thr 185	Pro	Ile	Pro	His	Asn 190	Gly	Суѕ
ra	Pro	Ara	I.vs	Ala	Ara	Lvc	Lau								

<210> 564

<211> 115

<212> PRT

<213> Homo sapiens

<400> 564

Val Arg Leu Val Pro Gly Ala Asp Lys Tyr Asn Asp Asp Ile Arg Lys
1 5 10 15

Gly Ile Val Leu Leu Glu Glu Leu Leu Pro Lys Gly Ser Lys Glu Glu 20 25 30

Gln Arg Asp Tyr Val Phe Tyr Leu Ala Val Gly Asn Tyr Arg Leu Lys
35 40 45

Glu Tyr Glu Lys Ala Leu Lys Tyr Val Arg Gly Leu Leu Gln Thr Glu 50 55 60

Pro Gln Asn Asn Gln Ala Lys Glu Leu Glu Arg Leu Ile Asp Lys Ala 65 70 75 80

Met Lys Lys Asp Gly Leu Val Gly Met Ala Ile Val Gly Gly Met Ala 85 90 95

Leu Gly Val Ala Gly Leu Ala Gly Leu Ile Gly Leu Ala Val Ser Lys 100 105 110

Ser Lys Ser 115

<210> 565

<211> 101

<212> PRT

<213> Homo sapiens

<400> 565

Pro Thr Arg Pro Asp Glu His Asp Glu Asn Asn Ala Glu Ala Ser Ala 1 5 10

Glu Leu Ser Asn Glu Gly Val Met Asn His Arg Ser Glu Glu Glu Arg 20 25 30

Val Thr Glu Thr Gln Lys Asn Glu Arg Val Lys Lys Gln Leu Gln Ala 35 40 45

Leu Ser Ser Glu Leu Ala Gln Ala Arg Asp Glu Thr Lys Lys Thr Gln

50 55 60 Asn Asp Val Leu His Ala Glu Asn Val Lys Ala Gly Arg Asp Lys Tyr Lys Thr Leu Arg Gln Ile Arg Gln Gly Asn Thr Lys Gln Arg Ile Asp Glu Phe Glu Ala Met 100 <210> 566 <211> 25 <212> PRT <213> Homo sapiens <400> 566 Thr Ala Asp Leu Val Ile Arg Pro Pro Arg Pro Leu Lys Val Leu Gly 5 10 Phe Cys Val Phe Cys Ala Pro Pro Leu 20 <210> 567 <211> 274 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (182) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (216) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (222) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (224)

<223> Xaa equals any of the naturally occurring L-amino acids

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<22	<222> (228)														
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Ala	Ser	Pro	Glu	Val	Glu	Ala	Gly	Ala	Ala	Arg	Gln	Pro	Leu	Leu	Gly
1				5					10					15	
Val	Ala	Gly	Gly 20	Gln	Thr	Leu	Gly	Ala 25	Thr	Pro	Gly	Pro	Val	Met	Asn
Gly	Pro	Ala 35		Gly	Glu	Val	Asp 40	Tyr	Lys	Lys	Lys	Туг 45	Arg	Asn	Leu
Lys	Arg 50		Leu	Lys	Phe	Leu 55	Ile	Tyr	Glu	His	Glu 60	Суѕ	Phe	Gln	Glu
31u 65	Leu	Arg	Lys	Ala	Gln 70	Arg	Lys	Leu	Leu	Lys 75	Val	Ser	Arg	Asp	Lys 80
Ser	Phe	Leu	Leu	Asp 85	Arg	Leu	Leu	Gln	Tyr 90	Glu	Asn	Val	Asp	Glu 95	Asp
Ser	Ser	Asp	Ser 100	Asp	Ala	Thr	Ala	Ser 105	Ser	Asp	Asn	Ser	Glu 110	Thr	Glu
Sly	Thr	Pro 115	Lys	Leu	Ser	Asp	Thr 120	Pro	Ala	Pro	Lys	Arg 125	Lys	Arg	Ser
Pro	Pro 130	Leu	Gly	Gly	Ala	Pro 135	Ser	Pro	Ser	Ser	Leu 140	Ser	Leu	Pro	Pro
er .45	Thr	Gly	Phe	Pro	Leu 150	Gln	Ala	Ser	Gly	Val 155	Pro	Ser	Pro	Туг	Leu 160
er	Ser	Leu	Ala	Ser 165	Ser	Arg	Tyr	Pro	Pro 170	Phe	Pro	Ser	Asp	Tyr 175	Leu
la	Leu	Gln	Leu 180	Pro	Xaa	Pro	Ser	Pro 185	Leu	Arg	Pro	Lys	Arg 190	Glu	Lys
rg	Pro	Arg 195	Leu	Pro	Arg	Lys	Leu 200	Lys	Met	Ala	Val	Gly 205	Pro	Pro	Asp

Cys Pro Val Gly Gly Pro Leu Kaa Phe Pro Gly Arg Gly Xaa Gly Xaa 215 Gly Val Gly Xaa Thr Leu Xaa Pro Leu Pro Pro Pro Lys Met Pro Pro 230 235 Pro Thr Ile Leu Ser Thr Val Pro Arg Gln Met Phe Ser Asp Ala Gly 250 Ser Gly Asp Asp Ala Leu Asp Gly Asp Asp Asp Leu Val Ile Asp Ile 265 Pro Glu <210> 568 <211> 133 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (47) <223> Xaa equals any of the naturally occurring L-amino acids <400>- 568 Ala Arg Gly Asp His Val Arg Ser Arg Glu Thr Gly Arg Gln Ser Ala 10 Ser Lys Gly Gln Ile Pro Leu Leu Pro Arg Gly Pro Ala Val Pro Gly Gly Pro Ser Ala Gln Thr Ala Ala Gln Arg Glu Leu Arg Gly Xaa Val 40 Gly Ala Gly Ala Pro Val Tyr Leu Ala Ala Val Leu Glu Tyr Leu Thr Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala Ala Arg Asp Asn Lys Lys 65 70 Thr Arg Ile Ile Pro Arg His Leu Gln Leu Ala Ile Arg Asn Asp Glu 85 Glu Leu Asn Lys Leu Leu Gly Lys Val Thr Ile Ala Gln Gly Gly Val 100 105 Leu Pro Asn Ile Gln Ala Val Leu Leu Pro Lys Lys Thr Glu Ser Gln 115 120

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Lys Thr Lys Ser Lys
130
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<210> 569

<211> 153

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (136)

<<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 569

Met Cys Arg Gly Tyr Ala Trp Asn Pro Gly Ile Thr Leu Gln Asn Arg

1 5 10 15

Lys Thr Lys Glu Gly Pro Arg Ala Pro Pro Ser Arg Met Pro Glu Pro 20 25 30

Ala Gly Gly Leu Arg Gly Cys Glu Ala Val Gly Thr Leu Leu Met Lys 35 40 45

Glu Thr Val Phe Ala Leu His Pro Ser Leu Pro Leu Gly Ala Gly Ser 50 55 60

Ser Pro Ser Ala Thr Cys Ser Glu Gly Leu His Leu Arg Gly Glu Gly 65 70 75 80

Trp Gly Lys Ser Pro Pro Val Pro Phe Leu Trp Pro Cys Cys Pro His

Thr Gln Leu Arg Gly Pro Thr Leu Gly Lys Ala Gly Ser Ala Arg Ser

Leu Ser Pro Ile Ser Ala Leu Ser Ala Trp Ile Pro Ala Glu Ala Met 115 120 125 Lys Gly Asn Lys Glu Lys Arg Xaa Xaa Lys Lys Lys Lys Lys Lys Lys 130 135 140

<210> 570

<211> 327

<212> PRT

<213> Homo sapiens

<400> 570

Pro Gly Ser Pro Arg Arg Cys Asp Ile Ile Ile Ile Ser Gly Arg Lys
1 . 5 10 15

Glu Lys Cys Glu Ala Ala Lys Glu Ala Leu Glu Ala Leu Val Pro Val
20 25 30

Thr Ile Glu Val Glu Val Pro Phe Asp Leu His Arg Tyr Val Ile Gly 35 40 45

Gln Lys Gly Ser Gly Ile Arg Lys Met Met Asp Glu Phe Glu Val Asn 50 55 60

Ile His Val Pro Ala Pro Glu Leu Gln Ser Asp Ile Ile Ala Ile Thr 65 70 75 80

Gly Leu Ala Ala Asn Leu Asp Arg Ala Lys Ala Gly Leu Leu Glu Arg

Val Lys Glu Leu Gln Ala Glu Gln Glu Asp Arg Ala Leu Arg Ser Phe 100 105 110

Lys Leu Ser Val Thr Val Asp Pro Lys Tyr His Pro Lys Ile Ile Gly

Arg Lys Gly Ala Val Ile Thr Gln Ile Arg Leu Glu His Asp Val Asn 130 135 140

Ile Gln Phe Pro Asp Lys Asp Asp Gly Asn Gln Pro Gln Asp Gln Ile 145 150 155 160

Thr Ile Thr Gly Tyr Glu Lys Asn Thr Glu Ala Ala Arg Asp Ala Ile 165 170 175

Leu Arg Ile Val Gly Glu Leu Glu Gln Met Val Ser Glu Asp Val Pro 180 . 185 190

Leu Asp His Arg Val His Ala Arg Ile Ile Gly Ala Arg Gly Lys Ala

195		200	205						
Ile Arg Lys Ile 1 210	Met Asp Glu 215	Phe Lys Val	Asp Ile Arg P	he Pro Gln					
Ser Gly Ala Pro A 225	asp Pro Asn (	Cys Val Thr	Val Thr Gly Le	eu Pro Glu 240					
Asn Val Glu Glu A 2	la Ile Asp 8 45	dis Ile Leu 250	Asn Leu Glu Gl	u Glu Tyr 255					
Leu Ala Asp Val V 260	al Asp Ser G	lu Ala Leu 265	Gln Val Tyr Me 27						
Pro Ala His Glu G. 275	lu Ala Lys A 2	la Pro Ser 80	Arg Gly Phe Va 285	l Val Arg					
Asp Ala Pro Trp Th 290	nr Ala Ser So 295	er Ser Glu	Lys Ala Pro As <sub>l</sub> 300	Met Ser					
Ser Ser Glu Glu Ph 305	e Pro Ser Pi 310	ne Gly Ala (	Gln Val Ala Pro B15	Lys Thr					
Leu Pro Trp Gly Pr 32									
<210> 571 <211> 166 <212> PRT <213> Homo sapiens									
<220> <221> SITE <222> (9)	v of the same								
<223> Xaa equals an <220> <221> SITE <222> (12)									
<223> Xaa equals an	y of the nat	urally occu	rring L-amino	acids					
Gly Asn Ser Arg Val	Asp Pro Arg	Xaa Arg Gl	y Xaa Ala His '	Thr Cys 15					
Ala Pro Cys Pro Ala 20	Pro Gly Pro	Leu Ala Gly	y Arg Ala Val s	Ser Gly					

His Gly Ser Leu Pro Pro Asp Arg Arg Ala Pro Ser Ala Leu Ser Ser

Pro	Ala 50		Glu	Gly	Glu	Arg 55	Arg	Arg	Pro	Asp	Leu 60		Glu	Ile	His
Arg 65		Leu	Arg	Pro	Gln 70		Ser	Ala	Arg	Pro 75		Pro	Asp	Pro	Asn 80
Ala	Glu	Phe	Asp	Pro 85		Leu	Pro	Gly	Gly 90	Gly	Leu	His	Arg	Cys 95	
Ala	Cys	Ala	Arg 100		Phe	Ile	Asp	Ser 105		Asn	Leu	Lys	Thr 110	His	Phe
Arg	Ser	Lys 115		His	Lys	Lys	Arg 120	Leu	Lys	Gln	Leu	Ser 125	Val	Glu	Pro
Tyr	Ser 130	Gln '	Glu	Glu	Ala	Glu 135	Arg	Ala	Ala	Gly	Met 140	Gly	Ser	Tyr	<u>V</u> al
Pro 145	Pro	Arg	Arg	Leu	Ala 150	Val	Pro	Thr	Glu	Val 155	Ser	Thr	Glu	Val	Pro 160
Glu	Met	Asp	Thr	Ser 165	Thr										
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	2> PF 3> Ho		sapie	ens											
	0> 57		Th.∽	Dho	uio	D	.1.	D	• 1 -	D1 -	<b>01</b>				
1	361	SEI		5	urs	PIO	Ala	PTO	10	rne	GIŸ	Ala	Thr	15	Ala
Ala	Phe	His	Arg 20	Arg	Ala	Ala	Leu	Arg 25	Ala	Pro	Glu	Pro	Ala 30	Met	Ser
Gly	Pro	Asn 35	Gly	Asp	Leu	Gly	Met 40	Pro	Val	Glu	Ala	Gly 45	Ala	Glu	Gly
Glu	Glu 50	Asp	Gly	Phe	Gly	Glu 55	Ala	Glu	Tyr	Ala	Ala 60	Ile	Asn	Ser	Met
Leu	qzA	Gln	Ile	Asn	Ser	Cys	Leu	Asp	His	Leu	Glu	Glu	Lys	Asn	Asp

His Leu His Ala Arg Leu Gln Glu Leu Leu Glu Ser Asn Arg Gln Thr

WO 00/55173 PCT/US00/05881

528

Arg Leu Glu Phe Gln Gln Gln Leu Gly Glu Ala Pro Ser Asp Ala Ser 100 105 110

Pro

<210> 573

<211> 99

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (38)

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<400> 573

Gly Ser Gly Ser Ser Arg Asp Leu His Lys Ala Leu Trp Glu Ala Gly
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Trp Glu Thr Val Glu Gly Gly Cys Pro Leu Xaa Pro Arg Arg His Arg 20 25 30

Ile Trp Ala Leu Xaa Xaa Ala Phe Leu Pro Glu Tyr Ala Ala Ile Asn  $35_{\,{}_{\stackrel{}{\scriptstyle}}}$  40 45

Ser Met Leu Asp Gln Ile Asn Ser Cys Leu Asp His Leu Glu Glu Lys 50 60

Asn Asp His Leu His Ala Arg Leu Gln Glu Leu Leu Glu Ser Asn Arg 65 70 75 80

Gln Thr Arg Leu Glu Phe Gln Gln Gln Leu Gly Glu Ala Pro Ser Asp 85 90 95

Ala Ser Pro

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<210> 574
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 <212> PRT
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<220>
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<220>
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<222> (129)
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<400> 574
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Ser Gly Phe Arg Lys Glu Leu Val Ser Arg Leu Leu His Leu His Phe
                                25
Lys Asp Asp Lys Thr Lys Val Ser Gly Asp Ala Leu Gln Leu Met Val
                             40
Glu Leu Leu Lys Val Phe Val Val Glu Ala Ala Val Arg Gly Val Arg
Gln Ala Gln Ala Glu Asp Ala Leu Arg Val Asp Val Asp Gln Leu Glu
                     70
Lys Val Leu Arg Ser Cys Ser Gly Leu Leu Gly Ile Ser Ala Val Ala
                                    90
Xaa Ala Thr Pro Arg Gly Ala Pro Gly Pro Gln Lys Gln Ala Leu Cys
                               105
Phe Gln Arg Pro Leu Ile Arg Gly Arg Glu Gly Xaa Glu Gly Phe Gly
                           120
Xaa Asp Ser Asn Lys Ile Ser Gly Ser Leu Gln Pro Val Gln Lys Gly
    130
Gln Asp Cys Ser Ala Leu Arg Ala Leu Glu Cys Pro Val Gly Thr Leu
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WO 00/55173 PCT/US00/05881

530

145 150 160 155 Val Trp Glu Gly Ala Ala Pro Gly Glu Ser Leu Pro Leu Leu Pro Gly 170 Thr Ile Val Cys Met Pro Pro Gly Val Leu Gln Ala Gly Ala Gly Lys 180 185 Gly Leu Ala Ser Arg 195 <210> 575 <211> 47 <212> PRT <213> Homo sapiens Leu Pro Met Val Asp Leu Met Glu Lys Leu Asn Ile Phe His Tyr Ala Leu Gln Asn Thr Val Tyr Val Ser Ala Ser Leu Gly Asn Gly Arg Gly 25 Gln Lys Lys Val Thr Phe Asn Leu Cys Ile Phe Ala Lys Pro Tyr 35 40 <210> 576 <211> 115 <212> PRT <213> Homo sapiens <400> 576 Trp Ser Arg Thr Ser Gln Pro Leu Pro Ser Thr Val Gly Cys Pro Arg Arg Arg Gly Phe Lys Asp Phe Gln Arg Arg Ile Leu Val Ala Thr Asn Leu Phe Gly Arg Gly Met Asp Ile Glu Arg Val Asn Ile Ala Phe Asn 35 40 Tyr Asp Met Pro Glu Asp Ser Asp Thr Tyr Leu His Arg Val Ala Arg 55

Ala Gly Arg Phe Gly Thr Lys Gly Leu Ala Ile Thr Phe Val Ser Asp

Glu Asn Asp Ala Lys Ile Leu Asn Asp Val Gln Asp Arg Phe Glu Val 85 90 95

Asn Ile Ser Glu Leu Pro Asp Glu Ile Asp Ile Ser Ser Tyr Ile Glu 100 105 110

Gln Thr Arg 115

<210> 577

<211> 346

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 577

Val Thr Ser Cys Val Ala Leu Leu Pro Ala Arg Arg Met Thr Tyr Thr 1 5 10 15

Thr Glu Thr Ala Leu Leu Asn Trp Ser Thr Cys Gln Met Val Leu Arg 20 25 30

Gly Ala Glu Thr Xaa Gly Cys Val Ile Val Ser Ala Ala Lys Ala Gln  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Leu Leu Gln Cys Gln His His Pro Ala Trp Tyr Gly Asp Thr Leu Lys
50 55 60

Gln Lys Thr Ser Trp Thr Cys Leu Leu Asp Gly Met Gln Tyr Phe Ala 65 70 75 80

Thr Thr Glu Ser Ser Pro Thr Glu Gln Asp Gly Arg Gln Leu Trp Leu 85 90 95

Glu Val Lys Asn Ile Glu Glu His Arg Gln Arg Ser Leu Asp Ser Val 100 105 110

Gln Glu Leu Met Glu Ser Gly Gln Ala Val Gly Gly Met Val Thr Thr .115 120 125

Thr Thr Asp Trp Asn Gln Pro Ala Glu Ala Gln Gln Ala Gln Gln Val 130 135 140

Gln Arg Ile Ile Ser Arg Cys Asn Cys Arg Met Tyr Tyr Ile Ser Tyr 145 150 155 160 WO 00/55173 PCT/US00/05881

532

Ser	His	Asp	Ile	Asp 165	Pro	Glu	Leu	Ala	Thr 170	Gln	Ile	Lys	Pro	Pro 175	Glu
Val	Leu	Glu	Asn 180	Gln	Glu	Lys	Glu	Asp 185	Leu	Leu	Lys	Lys	Gln 190	Glu	Gly
Ala	Val	Asp 195	Thr	Phe	Thr	Leu	11e 200	His	His	Glu	Leu	Glu 205	Ile	Ser	Thi
Asn	Pro 210	Ala	Gln	туг	Ala	Met 215	Ile	Leu	Asp	Ile	Val 220	Asn	Asn	Leu	Leu
Leu 225	His	Val	Glu	Pro	Lys 230	Arg	Lys	Glu	His	Ser 235	Glu	Lys	Lys	Gln	Arg 240
Val	Arg	Phe	Gln	Leu 245	Glu	Ile	Ser	Ser	Asn 250	Pro	Glu	Glu	Gln	Arg 255	Ser
Ser	Ile	Leu	His 260	Leu	Gln	Glu	Ala	Va'l 265	Arg	Gln	His	Val	Ala 270	Gln	Ile
Arg	Gln	Leu 275	Glu	Lys	Gln	Met	Туг 280	Ser	Ile	Met	Lys	Ser 285	Leu	Gln	Asp
Asp	Ser 290	Lys	Asn	Glu	Asn	Leu 295	Leu	Asp	Leu	Asn	Gln 300	Lys	Leu	Gln	Leu
Gln 305	Leu	Asn	Gln	Glu	Lys 310	Ala	Asn	Leu	Gln	Leu 315	Glu	Ser	Glu	Glu	Let 320
Asn	Ile	Leu	Ile	Arg 325	Cys	Phe	Lys	Asp	Phe 330	Gln	Leu	Gln	Arg	Ala 335	Asn
Lys	Met	Glu	Leu 340	Arg	Lys	His	Lys	Lys 345	Met						
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<400> 578

<212> PRT

<213> Homo sapiens

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Asn Ala Pro Pro Ala Phe Glu Ser Phe Leu Leu Phe Glu Gly Glu Lys 20 25 30

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Ile Thr Ile Asn Lys Asp Thr Lys Val Pro Asn Ala Cys Leu Phe Thr
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 Ile Asn Lys Glu Asp His Thr Leu Gly Asn Ile Ile Lys Ser Arg Ala
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                          55
 Cys Phe Pro Phe Ala Phe Cys Arg Asp Cys Gln Phe Pro Glu Ala Ser
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Gly 1	Arg	Pro	Thr	Arg 5		Gly	Gly	Leu	Gly 10		Gly	Val	Leu	Ala 15	Leu
Ala	Xaa	Gly	Xaa 20		Ala	Arg	Leu	Ala 25	Gly	Thr	Val	His	Glu 30	Val	Gly
Asp	Ala	Pro 35		Arg	Ala	Pro	Asp 40	Gln	Ala	Ala	Glu	Ile 45	Gly	Ser	Arg
Gly	Ser 50	Thr	Lys	Ala	Gln	Gly 55	Pro	Gln	Gln	Gln	Pro 60	Gly	Ser	Glu	Gly
Pro 65	Ser	Tyr	Ala	Lys	Lys 70	Val	Ala	Leu	Trp	Leu 75	Ala	Gly	Leu	Leu	Gly 80
Ala	Gly	Gly	Thr	Val 85	Ser	Val	Val	Tyr	Ile 90	Phe	Gly	Asn	Asn	Pro 95	Val
Asp	Glu	Asn	Gly 100	Ala	Lys	Ile	Pro	Asp 105	Glu	Phe	Asp	Asn	Asp 110	Pro	Ile
Leu	Val	Gln 115	Gln	Leu	Arg	Arg	Thr 120	туг	Lys	Tyr	Phe	Lys 125	Asp	Tyr	Arg
Gln	Met 130	Ile	Ile	Glu	Pro	Thr 135	Ser	Pro	Cys	Leu	Leu 140	Pro	Asp	Pro	Leu
Gln 145	Glu	Pro	Tyr	Tyr	Gln 150	Pro	Pro	Tyr	Thr	Leu 155	Val	Leu	Glu	Leu	Thr 160
Gly	Val	Leu	Leu	His 165	Pro	Glu	Trp	Ser	Leu 170	Ala	Thr	Gly	Trp	Arg 175	Phe
Lys	Lys	Arg	Pro 180	Gly	Ile	Glu	Thr	Leu 185	Phe	Gln	Gln	Leu	Ala 190	Pro	Leu
Tyr	Glu	Ile 195	Val	Ile	Phe	Thr	Ser 200	Glu	Thr	Gly	Met	Thr 205	Ala	Phe	Pro
Leu	Ile 210	Asp	Ser	Val	Asp	Pro 215	His	Gly	Phe	Ile	Ser 220	Tyr	Arg	Leu	Phe
Arg 225	Asp	Ala	Thr	Arg	Туг 230	Met	Asp	Gly	His	His 235	Val	Lys	Asp	Ile	Ser 240
Cys	Leu	Asn	Arg	Asp 245	Pro	Ala	Arg	Val	Val 250	Val	Val	Asp	Cys	Lys 255	Lys

Glu Ala Phe Arg Leu Gln Pro Tyr Asn Gly Val Ala Leu Arg Pro Trp 260 265 270 Asp Gly Asn Ser Asp Asp Arg Val Leu Leu Asp Leu Ser Ala Phe Leu 280 Lys Thr Ile Ala Leu Asn Gly Val Gly Gly Arg Kaa Glu Pro Cys Trp 290 295 300 Glu His Tyr Ala Leu Gly Xaa Asp Xaa Pro Arg Trp Ala Ala Phe Xaa 310 Asn Ser Gly Lys Xaa Gly Leu Glu Ala Gly Arg 325 <210>.580 <211> 374 <212> PRT <213> Homo sapiens <220> <221> SITE . <222> (235) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (285) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (307) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (319) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (324) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (341)

WO 00/55173

536

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	•		qual	s any	y of	the	nati	ural	ly o	ccur	ring	L-a	mino	aci	ds
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Val	Arg	Ala	Gly 20	Val	Ala	Ala	Leu	Ala 25	Thr	Val	Gly	Val	Ala 30	Ser	Gly
Pro	Gly	Pro 35	Gly	Arg	Pro	Gly	Pro 40	Leu	Gln	Asp	Glu	Thr 45	Leu	Gly	Val
Ala	Ser 50	Val	Pro	Ser	Gln	Trp 55	Arg	Ala	Val	Gln	Gly 60	Ile	Arg	Gly	Glu
Thr 65	Lys	Ser	Cys	Gln	Thr 70	Ala	Ser	Ile	Ala	Thr 75	Ala	Ser	Ala	Ser	Ala 80
Gln	Ala	Arg	Asn	His 85	Val	Asp	Ala	Gln	Val 90	Gln	Thr	Glu	Ala	Pro 95	Val
Pro	Val	Ser	Val 100	Gln	Pro	Pro	Ser	Gln 105	Tyr	Asp	Ile	Pro	Arg 110	Leu	Ala
Ala	Phe	Leu 115	Arg	Arg	Val	Glu	Ala 120	Met	Val	Ile	Arg	Glu 125	Leu	Asn	Lys
Asn	Trp 130	Gln	Ser	His	Ala	Phe 135	Asp	Gly	Phe	Glu	Val 140	Asn	Trp	Thr	Glu
Gln 145	Gln	Gln	Met	Val	Ser 150	Cys	Leu	туг	Thr	Leu 155	Gly	Tyr	Pro	Pro	Ala 160
Gln	Ala	Gln	Gly	Leu 165	His	Val	Thr	Ser	Ile 170	Ser	Trp	Asn	Ser	Thr 175	Gly
Ser	Val	Val	Ala 180	Cys	Ala	Tyr	Gly	Arg 185	Leu	Asp	His	Gly	Asp 190	Trp	Ser
Chr	Leu	Lys 195	Ser	Phe	Val	Cys	Ala 200	Trp	Asn	Leu	Asp	Arg 205	Arg	Asp	Leu
Arg	Pro 210	Gln	Gln	Pro	Ser	Ala 215	Val	Val	Glu	Val	Pro 220	Ser	Ala	Val	Leu

Cys Leu Ala Phe His Pro Thr Gln Pro Ser Xaa Val Ala Gly Gly Leu

225					230					235					240
Tyr	Ser	Gly	Glu	Val 245	Leu	Val	Trp	Asp	Leu 250	Ser	Arg	Leu	Glu	Asp 255	Pro
Leu	Leu	тгр	Arg 260	Thr	Gly	Leu	Thr	Asp 265	Asp	Thr	His	Thr	Asp 270	Pro	Val
Ser	Gln	Val 275	Val	Trp	Leu	Pro	Glu 280	Pro	Gly	His	Ser	Xaa 285	Arg	Phe	Gln
Val	Leu 290	Ser	Val	Ala	Thr	Asp 295	Gly	Lys	Val	Leu	Leu 300	Trp	Gln	Gly	Ile
Gly 305	Val	Xaa	Gln	Leu	Gln 310	Phe	Thr	Glu	Gly	Phe 315	Ala	Trp	Phe	Xaa	Gln 320
Gln	Leu	Pro	Xaa	Ser 325	Thr	Lys	Leu	Lys	Lys 330	His	Pro	Arg	Gly	Arg 335	Pro
Arg	Trp	Ala	Pro 340	Xaa	Gln	Ala	Phe	Phe 345	Gln	Phe	Asp	Leu	Arg 350	Phe	Ser
Phe	Trp	G1n 355	Glu	Ala ,	Val	Xaa	Val 360	Gln	Phe	Ser	Trp	His 365	Trp	Arg	Ala
Ala	Leu 370	Arg	Gly	Ala	His										
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				5					10					15	
Gly	Gly (	Gln	Pro (	Cys	Tyr	Leu	Leu .	Asp :	Ile	Gly	Cys	Gly .	Ser	Gly 1	Leu

PCT/US00/05881

WO 00/55173

538

25 20 Ser Gly Asp Tyr Leu Ser Asp Glu Gly His Tyr Trp Val Gly Ile Asp 40 35 Ile Ser Pro Ala Met Leu Asp Ala Ala Leu Asp Arg Asp Thr Glu Gly Asp Leu Leu Cly Asp Met Gly Gln Gly Ile Pro Phe Lys Pro Xaa Ser Leu Met Asp Val Ser Ala Phe Cys Xaa Ser Val Ala Leu 90 <210> 582 <211> 163 <212> PRT <213> Homo sapiens <400> 582 Pro Thr Arg Pro Ala Ala Gly Gly Ala Glu Arg Ile Ala Gly Ser Ala 10 Met Ser Ser Glu Pro Pro Pro Pro Gln Pro Pro Thr His Gln Ala 25 Ser Val Gly Leu Leu Asp Thr Pro Arg Ser Arg Glu Arg Ser Pro Ser 40 Pro Leu Arg Gly Asn Val Val Pro Ser Pro Leu Pro Thr Arg Arg Thr 55 Arg Thr Phe Ser Ala Thr Val Arg Ala Ser Gln Gly Pro Val Tyr Lys Gly Val Cys Lys Cys Phe Cys Arg Ser Lys Gly His Gly Phe Ile Thr Pro Ala Asp Gly Gly Pro Asp Ile Phe Leu His Ile Ser Asp Val Glu 105 Gly Glu Tyr Val Pro Val Glu Gly Asp Glu Val Thr Tyr Lys Met Cys 120 Ser Ile Pro Pro Lys Asn Glu Lys Leu Gln Ala Val Glu Val Val Ile Thr His Leu Ala Pro Gly Thr Lys His Glu Thr Trp Ser Gly His Val

Ile Ser Ser

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Ile	Asp	Val 35	Tyr	Met	Ile	Met	Val 40	Lys	Cys	Trp	Met	Ile 45	Asp	Ser	Glu
Cys	Arg 50	Pro	Xaa	Xaa	Arg	Glu 55	Leu	Val	Xaa	Glu	Phe 60	Ser	Arg	Met	Ala
Arg 65	Asp	Pro	Gln	Arg	Phe 70	Val	Val	Ile	Gln	Asn 75	Glu	Asp	Leu	Gly	Pro 80
Ala	Ser	Pro	Leu	Asp 85	Ser	Thr	Phe	Tyr	Arg 90	Ser	Leu	Leu	Glu	Asp 95	Asp
Asp	Met	Gly	Asp 100	Leu	Val	Asp	Ala	Glu 105	Glu	туг	Leu	Val	Pro 110	Gln	Gln
Gly	Phe	Phe 115	Cys	Pro	Asp	Pro	Ala 120	Pro	Gly	Ala	Gly	Gly 125	Met	Val	His
His	Arg 130	His	Arg	Ser	Ser	Ser 135	Thr	Arg	Ser	Gly	Gly 140	Gly	Asp	Leu	Thr
Leu 145	Gly	Leu	Glu	Pro	Xaa 150	Glu	Arg	Gly	Gly	Pro 155	Gln	Val	Ser	Thr	Gly 160
Thr	Leu	Arg	Arg	Ala 165	Gly	Ser	Asp	Val	Phe 170	Xaa	Gly	Asp	Leu	Gly 175	Met
Gly	Ala	Ala	Lys 180	Gly	Leu	Gln	Ser	Leu 185	Pro	Thr	His	Asp	Pro 190	Ser	Pro
Leu	Gln	Arg 195	туг	Ser	Glu	Asp	Pro 200	Thr	Val	Pro	Leu	Pro 205	Ser	Xaa	Thr
Asp	Gly 210	Tyr	Val	Ala	Pro	Leu 215	Thr	Cys	Ser	Pro	Gln 220	Pro	Glu	Tyr	Val
Asn 225	Gln	Pro	Asp	Val	Arg 230	Pro	Gln	Pro	Pro	Ser 235	Pro	Arg	Glu	Gly	Pro 240
Leu	Pro	Ala	Ala	Arg 245	Pro	Ala	Gly	Ala	Thr 250	Leu	Glu	Arg	Xaa	Lys 255	Thr
Leu	Ser	Pro	Gly 260	Lys	Asn	Gly	Val	Val 265	Lys	Glu	Phe	Leu	Pro 270	Leu	Gly
Val	Pro	Trp 275	Arg	Thr	Pro	Ser	Ile 280	Asp	Thr	Pro	Gly	Glu 285	Gly	Ala	Cys
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<211> 132

<212> PRT

<213> Homo sapiens

<400> 584

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Ile Ser Gln Trp Ala Val Glu Pro Asn Ala Arg Val Gly Pro Leu Leu 20 25 30

Glu Val Glu Ala Ala Ala Ala Asp His His Glu Ala Ala Ala Gly Ala 35 40 45

Gly Ser Ala Val Glu Lys Ile Cys Ile Asp Lys Gly Leu Thr Asp Glu 50 55 60

Ser Glu Ile Leu Arg Phe Leu Gln His Gly Thr Leu Val Gly Leu Leu 65 70 75 80

Pro Val Pro His Pro Ile Leu Ile Arg Lys Tyr Gln Ala Asn Ser Gly 85 90 95

Thr Ala Met Trp Phe Arg Thr Tyr Met Trp Gly Val Ile Tyr Leu Arg 100 105 110

Asn Val Asp Pro Pro Val Trp Tyr Asp Thr Asp Val Lys Leu Phe Glu 115 120 125

Ile Gln Arg Val

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<211> 218

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<213> Homo sapiens

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Ala Asp Ile Gln Ile Val Val Asp Lys Ser Pro Leu Pro Leu Gly Phe 105 Ser Pro Val Cys Xaa Pro Met Asp Ser Lys Ala Ser Val Ser Lys Lys 120 Lys Arg Met Cys Val Lys Leu Leu Pro Leu Gly Xaa Xaa Asp Thr Ala 130 135 Val Phe Asp Val Arg Leu Ser Gly Lys Thr Lys Thr Val Pro Gly Tyr 150 155 Leu Arg Ile Gly Asp Met Gly Gly Phe Ala Ile Trp Cys Lys Lys Gly 170 Gln Gly Pro Glu Ala Ser Cys Pro Lys Pro Arg Xaa Pro Gln Pro Gly Thr Cys Lys Gly Phe Ser Xaa Xaa Ala Ala Ser Gln Pro Lys Leu Arg 195 200 205 Ala Gly Leu Leu Gly Ser Arg Thr Ser Val 210 <210> 586 <211> 233 <212> PRT <213> Homo sapiens

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Glu	Met	Ala	Gln 100	Gly	Leu	Leu	Pro	Glu 105		Lys	Lys	Pro	Arg		Leu
His	Gly	Thr 115	Leu	Ile	Met	Lys	Asp 120		Asn	Phe	Arg	Leu 125	Val	Ser	Ser
Glu	Gln 130	Ala	Leu	Lys	Glu	Leu 135	Gly	Leu	Ala	Glu	His 140		Leu	Arg	Phe
Thr 145	Cys	Arg	Val	His	Leu 150	His	Asp	Thr	Arg	Lys 155	Glu	Gln	Glu	Thr	Ala 160
Leu	Arg	Val	Tyr	Ser 165	His	Leu	Lys	Ser	Val 170	Leu	Lys	Asp	His	Cys 175	Val
Gln	His	Leu	Pro 180	Asp	Gly	Ser	Val	Thr 185	Val	Glu	Ser	Val	Leu 190	Leu	Gln
Ala	Ala	Ala 195	Pro	Ser	Glu	Asp	Pro 200	Gly	Thr	Lys		Leu 205	Leu	Val	Ser
ľrp	Thr 210	Tyr	Gln	Asp	Glu	Glu 215	Leu	Gly	Ser	Phe	Leu 220	Thr	Ser	Leu	Leu
Lys 225	Lys	Gly	Leu		Gln 230	Ala	Pro	Ser							
211 212	> 58 > 11 > PR > Ho	6	apie	ns											
	> SI														
	> (1) > Xa		uals	any	of t	the i	natu	rall	y oc	curr:	ing 1	L-am:	ino a	acid	s
	> 58°		Ser H	lis F 5	iis 1	le A	Arg 1	Ala (	Gln I 10	Ceu S	Ser I	Lys M	let I	Leu 1	Leu
la A	rg I	ys C	1n 1	le L	eu C	ys V	al A		/al [	Lys A	Asn E	he F	la v	al 1	le

Tyr Leu Val Asp Ile Thr Glu Val Pro Asp Phe Asn Lys Met Tyr Glu 35 40 45

Leu Tyr Asp Pro Cys Thr Val Met Phe Phe Phe Arg Asn Lys His Ile 50 55 60

Met Ile Asp Leu Gly Thr Gly Asn Asn Asn Lys Ile Asn Trp Ala Met 65 70 75 80

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Lys Tyr Arg Tyr 115

<210> 588

<211> 133

<212> PRT

<213> Homo sapiens

<400> 588

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Glu Ala Lys Ser Phe Leu Lys Gly Leu Ser Asp Lys Gln Arg Glu Glu 35 40 45

His Tyr Phe Cys Lys Asp Phe Val Arg Leu Lys Lys Ile Pro Thr Trp 50 55 60

Lys Glu Met Ala Lys Gly Val Ala Val Lys Val Glu Glu Pro Arg Tyr 65 70 75 80

Lys Lys Asp Lys Gln Leu Asn Glu Lys Ile Ser Leu Leu Arg Ser Asp 85 90 95

Ile Thr Lys Leu Glu Val Asp Ala Ile Val Asn Ala Ala Asn Ser Ser 100 105 110

Pro Pro Pro Arg Ser Leu Ile Lys Asp Leu Arg Cys Gly Lys Lys Lys 115 120 125

Lys Lys Lys Lys

546

130

<210> 589

<211> 163

<212> PRT

<213> Homo sapiens

<400> 589

Arg His Arg Gly Gln Pro Leu Arg Gln Thr Arg Ala Ser Ser Pro  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Gln Leu Ala Gly Arg Ser Ser Ser Val Leu Pro Ala Ala Ala Gln Pro 20 25 30

Cys Thr Pro Thr Met Asp Val Phe Lys Lys Gly Phe Ser Ile Ala Lys 35 40 45

Glu Gly Val Val Gly Ala Val Glu Lys Thr Lys Gln Gly Val Thr Glu 50  $\,$  55  $\,$  60

Ala Ala Glu Lys Thr Lys Glu Gly Val Met Tyr Val Gly Ala Lys Thr 65 70 75 80

Lys Glu Asn Val Val Gln Ser Val Thr Ser Val Ala Glu Lys Thr Lys
85 90 95

Glu Gln Ala Asn Ala Val Ser Glu Ala Val Val Ser Ser Val Asn Thr 100 105 110

Val Ala Thr Lys Thr Val Glu Glu Ala Glu Asn Ile Ala Val Thr Ser 115 120 125

Gly Val Val Arg Lys Glu Asp Leu Arg Pro Ser Ala Pro Gln Glu 130 135 140

Gly Glu Ala Ser Lys Glu Lys Glu Glu Val Ala Glu Glu Ala Gln Ser 145 150 155 160

Gly Gly Asp

<210> 590

<211> 59

<212> PRT

<213> Homo sapiens '

<400> 590

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35 40 45

Pro Pro Ser Ala Pro Pro Thr Leu Trp Ser Phe 50 55

<210> 591

<211> 116

<212> PRT

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<220>

<221> SITE

<222> (31)

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Gln Ala Ala Leu His Gly Arg Pro Gln Arg Asp Pro Cys Val Gly Gly 35 40 45

Pro Arg Pro Leu Arg Cys Ser Arg Asp Cys Gly Gly Gly His Gln Arg 50 55 60

Leu Val Met Pro Gly Thr Trp Thr Gln Ala Trp Gln Arg Arg Gln Val 65 70 75 80

Val Asn Gly Leu Met Leu Gly Gln Ala Arg Ile His Val Asn Arg Leu 85 90 95

Glu Gln Ala Val Val Asn Leu Ala Pro Cys Glu Tyr Phe His Thr Cys 100 105 110

Cys Pro Phe Ala

211	> 59 > 29 > PR > Ho	0	apie	ns											
222	> SI > (3	0)	uals	any	of	the	natu	rall	у ос	curr	ing	L-am	nino	acid	s
:222	> SI > (2	39)	uals	any	of	the	natu	rall	у ос	curi	ing	L-an	nino	acid	s
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Ser	Leu	Thr	Leu 20	Leu	Ala	Thr	Leu	Cys 25	Pro	Gly	Asp	Gln	Xaa 30	Ser	Leu
Gly	Leu	Leu 35	Thr	Pro	Cys	туг	Ser 40	Gly	Ser	Glu	Pro	Ser 45	Gly	Thr	Phe
Gly	Pro 50	Val	Asn	Pro	Ser	Leu 55	Asn	Asn	Thr	туг	Glu 60	Phe	Met	Ser	Thr
Phe 65	Phe	Leu	Glu	Val	Ser 70	Ser	Val	Phe	Pro	Asp 75	Phe	туг	Leu	His	Leu 80
Gly	Gly	Asp	Glu	Val 85	Asp	Phe	Thr	Суѕ	Trp 90	Lys	Ser	Asn	Pro	Glu 95	Ile
Gln	Asp	Phe	Met 100	Arg	Lys	Lys	Gly	Phe 105	Gly	Glu	Asp	Phe	Lys 110	Gln	Leu
Glu	Ser	Phe 115	туг	Ile	Gln	Thr	Leu 120		Asp	Ile	Val	Ser 125	Ser	Туr	Gly
Lys	Gly 130		Val	Val	Trp	Gln 135		Val	Phe	Asp	Asn 140		Val	Lys	Ile
Gln 145	Pro	Asp	Thr	Ile	Ile 150		Val	Trp	Arg	Glu 155		Ile	Pro	Val	Asn 160
Tyr	Met	Lys	Glu	Leu 165		Leu	Val	Thr	Lys 170	Ala	Gly	Phe	Arg	Ala 175	Leu
Leu	Ser	Ala	Pro		туr	Leu	Asn	Arg 185		Ser	Туг	Gly	Pro	Asp	Trp

65

Lys Asp Phe Tyr Val Val Glu Pro Leu Ala Phe Glu Gly Thr Pro Glu 200 Gln Lys Ala Leu Val Ile Gly Gly Glu Ala Cys Met Trp Gly Glu Tyr Val Asp Asn Thr Asn Leu Val Pro Arg Leu Trp Pro Arg Ala Xaa Ala 225 230 235 Val Ala Glu Arg Leu Trp Ser Asn Lys Leu Thr Ser Asp Leu Thr Phe 250 Ala Tyr Glu Arg Leu Ser His Phe Arg Cys Glu Leu Leu Arg Arg Gly 265 270 Val Gln Ala Gln Pro Leu Asn Val Gly Phe Cys Glu Gln Glu Phe Glu 280 Gln Thr 290 <210> 593 <211> 665 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <400> 593 Asp Ala Asp Gly Arg Met Asp Kaa Leu Val Ser Glu Cys Ser Ala Arg Leu Leu Gln Gln Glu Glu Ile Lys Ser Leu Thr Ala Glu Ile Asp 25 Arg Leu Lys Asn Cys Gly Cys Leu Gly Ala Ser Pro Asn Leu Glu Gln 40 Leu Gln Glu Glu Asn Leu Lys Leu Lys Tyr Arg Leu Asn Ile Leu Arg

55

Lys Ser Leu Gln Ala Glu Arg Asn Lys Pro Thr Lys Asn Met Ile Asn

Ile Ile Ser Arg Leu Gln Glu Val Phe Gly His Ala Ile Lys Ala Ala

				85					90					95	
Tyr	Pro	Asp	Leu 100	Glu	Asn	Pro	Pro	Leu 105	Leu	Val	Thr	Pro	Ser 110	Gln	Gln
Ala	Lys	Phe 115	Gly	Asp	Tyr	Gln	Cys 120	Asn	Ser	Ala	Met	Gly 125	Ile	Ser	Gln
Met	Leu 130	Lys	Thr	Lys	Glu	Gln 135	Lys	Val	Asn	Pro	Arg 140	Glu	Ile	Ala	Glu
Asn 145	Ile	Thr	Lys	His	Leu 150	Pro	Asp	Asn	Glu	Сув 155	Ile	Glu	Lys	Val	Glu 160
Ile	Ala	Gly	Pro	Gly 165	Phe	Ile	Asn	Val	His 170	Leu	Arg	Lys	Asp	Phe 175	Val
Ser	Glu	Gln	Leu 180	Thr	Ser	Leu	Leu	Val 185	Asn	Gly	Va1	Gln	Leu 190	Pro	Ala
Leu	Gly	Glu 195	Asn	Lys	Lys	Val	Ile 200	Val	Asp	Phe	Ser	Ser 205	Pro	Asn	Ile
Ala	Lys 210	Glu	Met	His	Val	Gly 215	His	Leu	Arg	Ser	Thr 220	Ile	Ile	Gly	Glu
Ser 225	Ile	Ser	Arg	Leu	Phe 230	Glu	Phe	Ala	Gly	Туг 235	Asp	Val	Leu	Arg	Leu 240
Asn	His	Val	Gly	Asp 245	Trp	Gly	Thr	Gln	Phe 250	Gly	Met	Leu	Ile	Ala 255	His
Leu	Gln	Asp	Lys 260	Phe	Pro	Asp	Tyr	Leu 265	Thr	Val	Ser	Pro	Pro 270	Ile	Gly
Asp	Leu	G1n 275		Phe	Tyr	Lys	Glu 280	Ser	Lys	Lys	Arg	Phe 285	Asp	Thr	Glu
Glu	Glu 290		Lys	Lys	Arg	Ala 295		Gln	Cys	Val	Val 300		Leu	Gln	Gly
Lys 305	Asn	Pro	Asp	Ile	Thr 310	Lys	Ala	Тгр	Lys	Leu 315		Cys	Asp	Val	Ser 320
Arg	Gln	Glu	Leu	Asn 325		Ile	Туг	Asp	Ala 330		Asp	Val	. Ser	Leu 335	
Glu	Arg	Gly	Glu 340		Phe	туг	Gln	Asp 345		Met	. Asn	Asp	350		Lys
Glu	Phe	Glu	Asp	Arg	Gly	Phe	Val	Gln	Val	Asp	Asp	Gly	Arg	Lys	Ile

		355	•				360	1				365	5		
Val	. Phe		Pro	Gly	Cys	Ser 375		Pro	Leu	Thr	380		Lys	Ser	Asp
Gly 385	Gly	Туг	Thr	Tyr	Asp 390		Ser	Asp	Leu	Ala 395		lle	Lys	Gln	Arg 400
Leu	Phe	Glu	Glu	Lys 405	Ala	Asp	Met	Ile	Ile 410		Val	. Val	. Asp	Asn 415	Gly
Gln	Ser	Val	His 420		Gln	Thr	Ile	Phe 425		Ala	Ala	Gln	Met 430		Gly
Trp	Tyr	435		Lys	Val	Thr	Arg 440		Phe	His	Ala	Gly 445		Gly	Val
Val	Leu 450	.Gly	Glu	Asp	Lys	Lys 455	Lys	Phe	Lys	Thr	Arg 460		Gly	Glu	Thr
Val 465	Arg	Leu	Met	Asp	Leu 470	Leu	Gly	Glu	Gly	Leu 475	Lys	Arg	Ser	Met	Asp 480
Lys	Leu	Lýs	Glu	Lys 485		Arg	Asp	Lys	Val 490		Thr	Ala	Glu	Glu 495	Leu
			500					505					510		Asp
		515					520					525	•		Met
	530					535					540		,		Thr
545					550					555			Glu		560
				565					570				Glu	575	
Trp	Lys	Leu	Gly 580	Arg	Cys	Ile	Leu	Arg 585	Phe	Pro	Glu	Ile	Leu 590	Gln	Lys
		595					600					605	Ile		
	610					615					620		Cys		
ys.	Asp	Arg	Gln	Thr	Glv	Lvs	Ilė	Leu	Lvs	Val	Asn	Met	Tro	Ara	Mot

625 630 635 640

Leu Leu Cys Glu Ala Val Ala Val Met Ala Lys Gly Phe Asp Ile 645 650 655

Leu Gly Ile Lys Pro Val Gln Arg Met
660 . 665

<210> 594

<211> 116

<212> PRT

<213> Homo sapiens

<400> 594

Thr Val Thr Glu Thr Thr Val Thr Val Thr Thr Glu Pro Glu Asn Arg
1 5 10 15

Ser Leu Thr Ile Lys Leu Arg Lys Arg Lys Pro Glu Lys Lys Val Glu 20 25 30

Trp Thr Ser Asp Thr Val Asp Asn Glu His Met Gly Arg Arg Ser Ser  $\frac{35}{40}$   $\frac{45}{40}$ 

Lys Cys Cys Cys Ile Tyr Glu Lys Pro Arg Ala Phe Gly Glu Ser Ser 50 55 60

Thr Glu Ser Asp Glu Glu Glu Glu Glu Gly Cys Gly His Thr His Cys 65 70 75 80

Val Arg Gly His Arg Lys Gly Arg Arg Ala Thr Leu Gly Pro Thr 85 90 95

Pro Thr Thr Pro Pro Gln Pro Pro Asp Pro Ser Gln Pro Pro Pro Gly 100 105 110

Pro Met Gln His 115

<210> 595

<211> 294

<212> PRT

<213> Homo sapiens

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<40	0> 5	595													
Thr 1	Glr	ı Leu	ı Arg	y Val		Glu	Arg	Glu	Gly 10		Gly	Asp	Pro	Gln 15	
Phe	Ser	Asp	His		Leu	Arg	Thr	Pro 25		Leu	Glu	Asp	Arg 30	Pro	Gly
Asp	Ala	Met 35	Trp	Gly	Glu	Gly	Leu 40		Ala	Trp	Cys	Arg 45		Val	Glu
Asn	Arg 50	Trp	Cys	Leu	Lys	Arg 55		Ser	Ala	Pro	Leu 60		Leu	Gly	Leu
Leu 65	Gly	Cys	Pro	Asp	Ala 70		Ala	His	Phe	Pro 75		Met	Leu	Thr	Leu 80
Pro	Leu	Ser	Pro	Pro 85		Arg	Lys	Met	Ala 90		Asn	Phe	Leu	Ala 95	His
Glu	Lys	Ile	Trp 100		Asp	Lys	Phe	Lys 105		Asp	Asp	Ala	Glu 110	Arg	Arg
Phe	туr	Glu 115	Gln	Met	Asn	Gly	Pro 120		Ala	Gly	Ala	Ser 125	Arg	Gln	Glu
Asn	Gly 130	Ala	Ser	Val	Ile	Leu 135	Arg	Asp	Ile	Ala	Arg 140	Ala	Arg	Glu	Asn
[]e	Gln	Lys	Ser	Leu	Ala 150	Gly	Ser	Ser	Gly	Pro 155	Gly	Ala	Ser	Ser	Gly 160
hr	Ser	Gly	Asp	His 165	Gly	Glu	Leu	Val	Val 170	Arg	Ile	Ala	Ser	Leu 175	Glu
al	Glu	Asn	Gln 180	Ser	Leu	Arg	Gly	Val 185	Val	Gln	Glu	Leu	Gln 190	Gln	Ala
le	Ser	Lys 195	Leu	Glu	Ala	Arg	Leu 200	Asn	Val	Leu	Glu	Lys 205	Ser	Ser	Pro
ly	His 210	Arg	Ala	Thr	Ala	Pro 215	Gln	Thr	Gln	His	Val 220	Ser	Pro	Met	Arg
ln 25	Val	Glu	Pro	Pro	Ala 230	Lys	Lys	Pro	Ala	Thr 235	Pro	Ala	Glu	Asp	Asp 240

554

Lys Glu Ala Ala Gln Leu Arg Glu Glu Arg Leu Arg Xaa Tyr Ala Glu 260 265 270

Lys Lys Ala Lys Lys Xaa Ala Leu Val Ala Lys Ser Ser Ile Leu Leu 275 280 285

Asp Phe Lys Pro Trp Gly 290

<210> 596

<211> 134

<212> PRT

<213> Homo sapiens

<400> 596

Val Ser Arg Leu Gly Leu Leu Thr Pro Leu Gly Cys Ser Phe Gly Thr 1 5 10 15

Asp Glu Trp Leu Cys Pro Val Thr Ala Leu Ser Leu Pro Gly Gly Tyr
20 25 30

Val His Ser Arg Pro Leu Pro Arg Leu Arg Pro Met Arg Tyr Gly Asp 35 40 45

Thr Leu Ala Pro Arg Ser Trp Arg His Arg Pro Leu Pro Trp His Ser 50 55 60

Ser Phe Ala Gly Asp Pro Pro Leu Pro Lys Ala Leu Ser Pro Cys Ser 65 70 75 80

His Ser Arg Arg Thr Ala Ala Arg Ala Ser Gly Ser Leu Ala Thr Gly
85 90 95

Phe Glu Arg Leu His Ser Trp Gly Leu Glu Gly Gly Val Pro Lys Ala

Leu Ser Lys Ser Gln Ser Ser Ser His Gln Ser Leu Tyr Lys Val Leu 115 120 125

Gly Pro Glu Ala Leu Pro 130

<210> 597

<211> 91

<212> PRT

<213> Homo sapiens

<400> 597

Glu Gly Pro Glu Gly Ala Asn Leu Phe Ile Tyr His Leu Pro Gln Glu 1 5 10 15

Phe Gly Asp Gln Asp Ile Leu Gln Met Phe Met Pro Phe Gly Asn Val 20 25 30

Ile Ser Ala Lys Val Phe Ile Asp Lys Gln Thr Asn Leu Ser Lys Cys
35 40 45

Phe Gly Phe Val Ser Tyr Asp Asn Pro Val Ser Ala Gln Ala Ala Ile 50 55 60

Gln Ala Met Asn Gly Phe Gln Ile Gly Met Lys Arg Leu Lys Val Gln 65 70 75 80

Leu Lys Arg Ser Lys Asn Asp Ser Lys Pro Tyr 85 90

<210> 598

<211> 68

<212> PRT

<213> Homo sapiens

<400> 598

Arg Pro Thr Arg Pro Glu Lys Val Gly Ser Gly Gly Ser Ser Val Gly
1 5 10 15

Ser Gly Asp Ala Ser Ser Ser Arg His His His Arg Arg Arg Phe 20 25 30

His Leu Pro Gln Gln Pro Leu Leu Gln Arg Glu Val Trp Cys Val Gly
35 40 45

Thr Thr Gly Asn Ala Asn Gln Ala Gln Ser Ser Thr Glu Gln Thr Leu
50 55 60

Leu Lys Pro Lys

<210> 599

<211> 119

<212> PRT

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  <223> Xaa equals any of the naturally occurring L-amino acids
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Phe Gly Arg Asp Gln Val Tyr Leu Ser Tyr Asn Asn Val Ser Ser Leu
                   5
Lys Met Leu Val Ala Lys Asp Asn Trp Val Leu Ser Ser Glu Ile Ser
                                25
Gln Val Arg Leu Tyr Thr Leu Glu Asp Asp Lys Phe Leu Ser Phe His
                             40
Met Glu Met Val Val His Val Asp Ala Xaa Gln Ala Phe Leu Leu Leu
                         55
Ser Asp Leu Xaa Gln Arg Pro Glu Trp Asp Lys His Tyr Arg Ser Val
                     70
Glu Leu Val Gln Gln Val Asp Xaa Gly Arg Arg His Leu Pro Arg His
Gln Xaa Xaa Pro Arg Arg Ser His Lys Ala Pro Gly Leu Arg Asp Pro
                               105
Gly Leu Glu Ala Glu Ala Leu
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Arg Leu Pro Leu Arg Phe Pro Ser Trp Arg Gly Pro Trp Cys Gly Ile
             20
                                 25
Glu Ile Ala Gly Tyr Gly Ala Glu Val Phe Arg Gln Tyr Trp Asp Ile
                             40
Pro Asp Gly Thr Asp Cys His Arg Lys Ala Tyr Ser Thr Thr Ser Ile
                         55
Ala Ser Val Ala Xaa Leu Thr Ala Ala Ala Tyr Arg Val Thr Leu Asn
                     70
                                         75
Pro Pro Gly Thr Phe Leu Glu Gly Val Ala Lys Val Gly Gln Tyr Thr
                                     90
Phe Thr Ala Ala Val Gly Ala Val Phe Gly Leu Thr Thr Cys Ile
                                105
Ser Ala His Val Arg Glu Lys Pro Asp Asp Pro Leu Asn Tyr Phe Leu
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125

558

120

Gly Gly Cys Ala Gly Gly Xaa Thr Leu Gly Ala Arg Thr His Asn Tyr 135 Gly Ile Gly Ala Ala Ala Cys Val Tyr Phe Gly Ile Ala Ala Ser Leu Val Lys Met Gly Arg Leu Glu Gly Trp Glu Val Phe Ala Lys Pro Lys 170 Val <210> 601 <211> 218 <212> PRT <213> Homo sapiens <400> 601 Arg Gly Gly Gly Gly Ala Ser Ser Cys Cys Cys Ala Pro Ser Pro Arg Gly Arg Pro Val Pro Ala Arg Thr Pro Arg Arg Cys Pro Arg 25 Pro Ser Pro Gly Pro Ala Met Gly Leu Thr Val Ser Ala Leu Phe Ser 40 Arg Ile Phe Gly Lys Lys Gln Met Arg Ile Leu Met Val Gly Leu Asp Ala Ala Gly Lys Thr Thr Ile Leu Tyr Lys Leu Lys Leu Gly Glu Ile 70 75 Val Thr Thr Ile Pro Thr Ile Gly Phe Asn Val Glu Thr Val Glu Tyr Lys Asn Ile Cys Phe Thr Val Trp Asp Val Gly Gln Asp Lys Ile Arg Pro Leu Trp Arg His Tyr Phe Gln Asn Thr Gln Gly Leu Ile Phe 120 Val Val Asp Ser Asn Asp Arg Glu Arg Val Gln Glu Ser Ala Asp Glu Leu Gln Lys Met Leu Gln Glu Asp Glu Leu Arg Asp Ala Val Leu Leu 155

Val Phe Ala Asn Lys Gln Asp Met Pro Asn Ala Met Pro Val Ser Glu 165 170 175

Leu Thr Asp Lys Leu Gly Leu Gln His Leu Arg Ser Arg Thr Trp Tyr 180 185 190

Val Gln Ala Thr Cys Ala Thr Gln Gly Thr Gly Leu Tyr Asp Gly Leu 195 200 205

Asp Trp Leu Ser His Glu Leu Ser Lys Arg 210 215

<210> 602

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<212> PRT

<213> Homo sapiens

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<221> SITE

<222> (32)

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<400> 602

Pro Gly Gln Ala Gly Ala Glu Gly His Val Arg Cys Cys Pro Gly Glu
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Glu Gln Lys Ala Gly Gly Glu Arg Arg Cys Pro Gly Pro Gln Arg Xaa 20 25 30

Gly Ala Ala Leu Gly Pro Gly Pro Gly Glu Ala Arg Leu Asp Tyr Ser 35 40 45

Glu Phe Phe Thr Glu Asp Val Gly Gln Leu Pro Gly Leu Thr Ile Trp 50 55 60

Gln Ile Glu Asn Phe Val Pro Val Leu Val Glu Glu Ala Phe His Gly
65 70 75 80

Lys Phe Tyr Glu Ala Asp Cys Tyr Ile Val Leu Lys Thr Phe Leu Asp
85 90 95

Asp Ser Gly Ser Leu Asn Trp Glu Ile Tyr Tyr Trp Ile Gly Glu
100 105 110

Ala	Thr	Leu 115	Asp	Lys	Lys	Ala	Cys 120	Ser	Ala	Ile	His	Ala 125	Val	Asn	Leu
Arg	Asn 130	Tyr	Leu	Gly	Ala	Glu 135	Cys	Arg	Thr	Val	Arg 140	Glu	Glu	Met	Gly
Asp 145	Glu	Ser	Glu	Glu	Phe 150	Leu	Gln	Val	Phe	Asp 155	Asn	Asp	Ile	Ser	Туг 160
Ile	Glu	Gly	Gly	Thr 165	Ala	Ser	Gly	Phe	Туг 170	Thr	Val	Glu	Asp	Thr 175	His
Туг	Val	Thr	Arg 180	Met	туг	Arg	Val	Туг 185	Gly	Lys	Lys	Asn	Ile 190	Lys	Leu
G1u	Pro	Val 195	Pro	Leu	Lys	Gly	Thr 200	Ser	Leu	Asp	Pro	Arg 205	Phe	Val	Phe
Leu	Leu 210	Asp	Arg	Gly	Leu	Asp 215	Ile	Tyr	Val	Trp	Arg 220	Gly	Ala	Gln	Ala
Thr 225	Leu	Ser	Ser	Thr	Thr 230	Lys	Ala	Arg	Leu	Phe 235	Ala	Glu	Lys	Ile	Asn 240
Lys	Asn	Glu	Arg	Lys 245	Gly	Lys	Ala	Glu	Ile 250	Thr	Leu	Leu	Val	Gln 255	Gly
Gln	Glu	Leu	Pro 260	Glu	Phe	Trp	Glu	Ala 265	Leu	Gly	Gly	Glu	Pro 270	Ser	Glu
Ile	Lys	Lys 275	His	Val	Pro	Glu	Asp 280	Phe	Trp	Pro	Pro	Gln 285	Pro	Lys	Leu
Tyr	Lys 290	Val	Gly	Leu	Gly	Leu 295	Gly	Tyr	Leu	Glu	Leu 300	Pro	Gln	lle	Asn
Туг 305	Lys	Leu	Ser	Val.	Glu 310	His	Lys	Gln	Arg	Pro 315	Lys	Val	Glu	Leu	Met 320
Pro	Arg	Met	Arg	Leu 325	Leu	Gln	Ser	Leu	Leu 330	Asp	Thr	Arg	Суѕ	Val 335	Asn
Ile	Leu	Asp	Cys 340	Trp	Ser	Asp	Val	Phe 345	Ile	Trp	Leu	Gly	Arg 350	Lys	Ser
Pro	Arg	Leu 355	Val	Arg	Ala	Ala	Ala 360	Leu	Lys	Leu	Gly	Gln 365	Glu	Leu	Cys
Gly	Met 370	Leu	His	Arg	Pro	Arg 375	His	Ala	Thr	Val	Ser 380	Arg	Ser	Leu	Glu

385		Glu	Ala	GIN	390		Lys	Ala	Lys	9 Phe		Asn	Trp	Asp	400
Val	. Leu	Thr	Val	Asp 405		Thr	Arg	Asn	Ala 410		Ala	Val	Leu	Gln 415	Ser
Pro	Gly	Leu	Ser 420	Gly	Lys	Val	Lys	Arg 425		Ala	Glu	Lys	Lys 430	_	Gln
Met	Lys	Ala 435		Leu	Thr	Ala	Leu 440		Leu	Pro	Arg	Gln 445	Pro	Pro	Met
	450			Ala		455					460				
465	•			Gly	470					475					480
				Phe 485					490					495	
			500					505				•	510		
		515		Glu			520					525			
	530			Glu		535					540				
45				Gly	550					555					560
				Gln 565					570					575	
			580	Met				585					590		
		595		Lys			600					605			
	610			Gln		615					620	•			
25				Arg	630					635					640
sn	ser	GLu	Phe	Cys 645	Phe	Ile	Leu	Lys	Val 650	Pro	Phe	Glu	Ser	Glu 655	Asp

562

Asn	Gln	Gly	11e 660	Val	туr	Ala	Trp	Val 665	Gly	Arg	Ala	Ser	Asp 670	Pro	Asp
Glu	Ala	Lys 675	Leu	Ala	Glu	Asp	Ile 680	Leu	Asn	Thr	Met	Phe 685	Asp	Thr	Ser
Tyr	Ser 690	Lys	Gln	Val	Ile	Asn 695	Glu	Gly	Glu	Glu	Pro 700	Glu	Asn	Phe	Ph∈
Trp 705	Val	Gly	Ile	Gly	Ala 710	Gln	Lys	Pro	Tyr	Asp 715	Asp	Asp	Ala	Glu	Туг 720
Met	Lys	His	Thr	Arg 725	Leu	Phe	Arg	Cys	Ser 730	Asn	Glu	Lys	Gly	Tyr 735	Phe
Ala	Val	Thr	Glu 740	Lys	Cys	Ser	Asp	Phe 745	Суѕ	Gln	Asp	Asp	Leu 750	Ala	Asp
Asp	Asp	Ile 755	Met	Leu	Leu	Asp	Asn 760	Gly	Gln	Glu	Val	Туг 765	Met	Trp	Va l
Gly	Thr 770	Gln	Thr	Ser	Gln	Val 775	Glu	Ile	Lys	Leu	Ser 780	Leu	Lys	Ala	Cys
Gln 785	Val	Tyr	Ile	Gln	His 790	Met	Arg	Ser	Lys	Glu 795	His	Glu	Arg	Pro	800
Arg	Leu	Arg	Leu	Val 805	Arg	Lys	Gly	Asn	Glu 810	Gln	His	Ala	Phe	Thr 815	Arç
Cys	Phe	His	Ala 820	Trp	Ser	Ala	Phe	Cys 825	Lys	Ala	Leu	Ala			
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<211> 221

<212> PRT

<213> Homo sapiens

<400> 603

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Met Gly Thr Ala Gly Ala Met Gln Leu Cys Trp Val Ile Leu Gly Phe 20 25

Leu Leu Phe Arg Gly His Asn Ser Gln Pro Thr Met Thr Gln Thr Ser 35 40

Ser	Ser 50	Gln	Gly	Gly	Leu	Gly 55	Gly	Leu	Ser	Leu	Thr		Glu	Pro	Val
Ser 65	Ser	Asn	Pro	Gly	Tyr 70	Ile	Pro	Ser	Ser	Glu 75		Asn	Arg	Pro	Ser 80
His	Leu	Ser	Ser	Thr 85	Gly	Thṛ	Pro	Gly	Ala 90		Val	Pro	Ser	Ser 95	Gly
Arg	Asp	Gly	Gly 100	Thr	Ser	Arg	Asp	Thr 105	Phe	Gln	Thr	Val	Pro 110	Pro	Asn
Ser	Thr	Thr 115	Met	Ser	Leu	Ser-	Met 120	Arg	Glu	Asp	Ala	Thr 125	Ile	Leu	Pro
Ser	Pro 130	Thr	Ser	Glu	Thr	Val 135	Leu	Thr	Val	Ala	Ala 140	Phe	Gly	Val	Ile
Ser 145	Phe	Ile	Val	Ile	Leu 150	Val	Val	Val	Val	11e 155	Ile	Leu	Val	Gly	Val 160
Val	Ser	Leu	Arg	Phe 165	Lys	Cys	Arg	Lys	Ser 170.		Glu	Ser	Glu	Asp 175	Pro
Gln	Lys	Pro	Gly 180	Ser	Ser	Gly	Leu	Ser 185	Glu ′	Ser	Cys	Ser	Thr 190	Ala	Asn
Gly	Glu	Lys 195	Asp	Ser	Ile	Thr	Leu 200	Ile	Ser	Met	Lys	Asn 205	Ile	Asn	Met
Asn	Asn 210	Gly	Lys	Gln		Leu 215	Ser	Ala	Glu	Lys	Val 220	Leu			

Gly Ile Gly Glu Val Leu Gly Lys Lys Leu Glu Glu Arg Gly Phe Asp 35 40 45

Lys Ala Tyr Val Val Leu Gly Gln Phe Leu Val Leu Lys Lys Asp Glu

564

55 60 Asp Leu Phe Arg Glu Trp Leu Lys Asp Thr Cys Gly Ala Asn Ala Lys Gln Ser Arg Asp Cys Phe Gly Cys Leu Arg Glu Trp Cys Asp Ala Phe Leu <210> 605 <211> 266 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (84) <223> Xaa equals any of the naturally occurring L-amino acids <400> 605 Gly Pro Arg Arg Leu Gly Ala Leu His Ala Ala Ala Thr Gly Ala Arg Cys Leu Val Glu Leu Leu Val Ala His Gly Ala Asp Leu Asn Ala Lys Ser Leu Met Asp Glu Thr Pro Leu Asp Val Cys Gly Asp Glu Glu Val 40 Arg Ala Lys Leu Leu Glu Leu Lys His Lys His Asp Ala Leu Leu Arg Ala Gln Ser Arg Gln Arg Ser Leu Leu Arg Arg Arg Thr Ser Ser Ala 70 Gly Ser Arg Xaa Lys Val Val Arg Arg Val Ser Leu Thr Gln Arg Thr Asp Leu Tyr Arg Lys Gln His Ala Gln Glu Ala Ile Val Trp Gln Gln Pro Pro Pro Thr Ser Pro Glu Pro Pro Glu Asp Asn Asp Asp Arg Gln 120

Thr Gly Ala Glu Leu Arg Pro Pro Pro Glu Glu Asp Asn Pro Glu

<210> 606

Leu Tyr Ser Lys Arg Leu Asp Arg Ser Val Ser Tyr Gln Leu Ser Pro Info Leu Asp Ser Thr Thr Pro His Thr Leu Val His Asp Lys Ala His His 180																
165 170 175 175 176 177 177 178 179 179 179 179 179 179 179 179 179 179		Val	Arg	Pro	His		Gly	Arg	Val	Gly		Ser	Pro	Val	Arg	Ні. 16
Thr Leu Ala Asp Leu Lys Arg Gln Arg Ala Ala Ala Lys Leu Gln Arg 200	Leu	Tyr	Ser	Lys		Leu	Asp	Arg	Ser		Ser	Tyr	Gln	Leu		Pr
Pro Pro Pro Glu Glu Gly Pro Glu Ser Pro Glu Thr Ala Glu Pro Gly Le 210  Pro Gly Asp Thr Val Thr Pro Gln Pro Asp Cys Gly Phe Arg Ala Gl 225  Gly Asp Pro Pro Leu Leu Lys Leu Thr Ala Pro Ala Val Glu Ala Pro 245  Val Glu Arg Arg Pro Cys Cys Leu Leu Met	Leu	Asp	Ser		Thr	Pro	His	Thr		Val	His	Asp	Lys		His	Hi:
210 215 220  Pro Gly Asp Thr Val Thr Pro Gln Pro Asp Cys Gly Phe Arg Ala Gl 225 230 235 24  Gly Asp Pro Pro Leu Leu Lys Leu Thr Ala Pro Ala Val Glu Ala Pr 245 250 255  Val Glu Arg Arg Pro Cys Cys Leu Leu Met	Thr	Leu		Asp	Leu	Lys	Arg		Arg	Ala	Ala	Ala		Leu	Gln	Ar
225 230 235 24  Gly Asp Pro Pro Leu Leu Lys Leu Thr Ala Pro Ala Val Glu Ala Pro 245 250 255  Val Glu Arg Arg Pro Cys Cys Leu Leu Met	Pro		Pro	Glu	Gly	Pro		Ser	Pro	Glu	Thr		Glu	Pro	Gly	Lei
245 250 255  Val Glu Arg Arg Pro Cys Cys Leu Leu Met		Gly	Asp	Thr	Val		Pro	Gln	Pro	Asp		Gly	Phe	Arg	Ala	G1 <sub>3</sub>
	Gly	Asp	Pro	Pro		Leu	Lys	Leu	Thr		Pro	Ala	Val	Glu		Pro
	Val	Glu	Arg		Pro	Cys	Cys	Leu		Met						

Ser Ser Ala Glu Leu Asn Tyr Ser Leu Pro Tyr Asp Ser Lys His Gln 20 25 30

Ile Arg Asn Ala Ser Asn Val Lys His His Asp Ser Ser Ala Leu Gly
35 40 45

Val	Tyr 50	Ser	Tyr	Ile	Pro	Leu 55	Val	Glu	Asn	Pro	Tyr 60	Phe	Ser	Ser	тгр
Pro 65	Pro	Ser	Gly	Thr	Ser 70	Ser	Lys	Met	Ser	Leu 75	Asp	Leu	Pro	Glu	Lys 80
Gln	Asp	Gly	Thr	Val 85	Phe	Pro	Ser	Ser	Leu 90	Xaa	Pro	Thr	Ser	Ser 95	Thr
Ser	Leu	Phe	Ser 100	Tyr	Tyr	Asn	Ser	His 105	Asp	Ser	Leu	Ser	Leu 110	Asn	Ser
Pro	Thr	Asn 115	Ile	Ser	Ser	Leu	Leu 120	Asn	Gln	Glu	Ser	Ala 125	Val	Leu	Ala
Thr	Ala 130	Pro	Arg	Ile	Asp	Asp 135	Glu	Ile	Pro	Pro	Pro 140	Leu	Pro	Val	Arg
Thr 145	Pro	Glu	Ser	Phe	Ile 150	Val	Val	Glu	Glu	Ala 155	Gly	Glu	Phe	Ser	Pro 160
Asn	Val	Pro	Lys	Ser 165	Leu	Ser	Ser	Ala	Val 170	Lys	Val	Lys	Ile	Gly 175	Thr
Ser	Leu	Glu	Trp 180	Gly	Gly	Thr	Ser	Glu 185	Pro	Lys	Lys	Phe	Asp 190	Asp	Ser
Val	Ile	Leu 195	Arg	Pro	Ser	Lys	Ser 200	Val	Lys	Leu	Arg	Ser 205	Pro	Lys	Ser
Glu	Leu 210	His	Gln	Asp	Arg	Ser 215	Ser	Pro	Pro	Pro	Pro 220	Leu	Pro	Glu	Arg
Thr 225	Leu	Glu	Ser	Phe	Phe 230	Leu	Ala	Asp	Glu	Asp 235	Cys	Met	Gln	Ala	Gln 240
Ser	Ile	Glu	Thr	Tyr 245		Thr	Ser	Tyr	Pro 250	Asp	Thr	Met	Glu	Asn 255	Ser
Thr	Ser	Ser	Lys 260	Gln	Thr	Leu	Lys	Thr 265	Pro	Gly	Lys	Ser	Phe 270	Thr	Arg
Ser	Lys	Ser 275	Leu	Lys	Ile	Leu	Arg 280	Asn	Met	Lys	Lys	Xaa 285	Ile	Cys	Asn
Ser	Cys 290	Pro	Pro	Asn	Lys	Pro 295	Ala	Glu	Ser	Val	Gln 300	Ser	Asn	Asn	Ser
ser 305	Ser	Phe	Leu	Asn	Phe 310	Gly	Phe	Ala	Asn	Arg 315	Phe	Ser	Lys	Pro	Lys 320

Gly Pro Arg Asn Pro Pro Pro Thr Trp Asn Ile 325 330

<210> 607 <211> 192 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (78) <223> Xaa equals any of the naturally occurring L-amino acids Ala Ala Pro Ser Glu Pro Lys Ala Arg Gly Gly His Gly Gly Ala Leu Ala Arg Leu Glu Thr Met Pro Lys Leu Gln Gly Phe Glu Phe Trp Ser 20 Arg Thr Leu Arg Gly Ala Arg His Val Val Ala Pro Met Val Asp Gln 40 Ser Glu Leu Ala Trp Arg Leu Leu Ser Arg Arg His Gly Ala Gln Leu 55 Cys Tyr Thr Pro Met Leu His Ala Gln Val Phe Val Arg Xaa Ala Asn 7.0 Tyr Arg Lys Glu Asn Leu Tyr Cys Glu Val Cys Pro Glu Asp Arg Pro Leu Ile Val Gln Phe Cys Ala Asn Asp Pro Glu Val Phe Val Gln Ala 100 105 Ala Leu Leu Ala Gln Asp Tyr Cys Asp Ala Ile Asp Leu Asn Leu Gly Cys Pro Gln Met Ile Ala Lys Arg Gly His Tyr Gly Ala Phe Leu Gln 135 Asp Glu Trp Asp Leu Leu Gln Arg Met' Ile Leu Leu Ala His Glu Lys 150 Leu Ser Val Pro Val Thr Cys Lys Ile Arg Val Phe Pro Glu Ile Asp 165 170

Lys Thr Val Ser Thr Pro Arg Cys Trp Arg Arg Pro Ala Ala Ser Cys 180 185 190

<210> 608 <211> 415 <212> PRT <213> Homo sapiens <400> 608 His Ile Lys Cys Pro His Ser Lys Tyr Gly Cys Thr Phe Ile Gly Asn 1 5 10 Gln Asp Thr Tyr Glu Thr His Leu Glu Thr Cys Arg Phe Glu Gly Leu Lys Glu Phe Leu Gln Gln Thr Asp Asp Arg Phe His Glu Met His Val 40 Ala Leu Ala Gln Lys Asp Gln Glu Ile Ala Phe Leu Arg Ser Met Leu Gly Lys Leu Ser Glu Lys Ile Asp Gln Leu Glu Lys Ser Leu Glu Leu 70 75 Lys Phe Asp Val Leu Asp Glu Asn Gln Ser Lys Leu Ser Glu Asp Leu Met Glu Phe Arg Arg Asp Ala Ser Met Leu Asn Asp Glu Leu Ser His Ile Asn Ala Arg Leu Asn Met Gly Ile Leu Gly Ser Tyr Asp Pro Gln 120 Gln Ile Phe Lys Cys Lys Gly Thr Phe Val Gly His Gln Gly Pro Val 135 Trp Cys Leu Cys Val Tyr Ser Met Gly Asp Leu Leu Phe Ser Gly Ser Ser Asp Lys Thr Ile Lys Val Trp Asp Thr Cys Thr Thr Tyr Lys Cys 165 170 Gln Lys Thr Leu Glu Gly His Asp Gly Ile Val Leu Ala Leu Cys Ile 185 Gln Gly Cys Lys Leu Tyr Ser Gly Ser Ala Asp Cys Thr Ile Ile Val 200

•	Trp	Asp 210	Ile	Gln	Asn	Leu	Gln 215	Lys	Val	Asn	Thr	11e 220		Ala	His	Asp
	Asn 225	Pro	Val	Cys	Thr	Leu 230	Val	Ser	Ser	His	Asn 235	Val	Leu	Phe	Ser	Gly 240
;	Ser	Leu	Lys	Ala	11e 245	Lys	Val	Trp	Asp	Ile 250	Val	Gly	Thr	Glu	Leu 255	Lys
]	Leu	Lys	Lys	Glu 260	Leu	Thr	Gly	Leu	Asn 265	His	Trp	Val	Arg	Ala 270	Leu	Val
1	Ala	Ala	Gln 275	Ser	Tyr	Leu	Tyr	Ser 280	Gly	Ser	Tyr	Gln	Thr 285	Ile	Lys	Ile
1	rp	Asp 290	Ile	Arg	Thr	Leu	Asp 295	Cys	Ile	His	Val	Leu 300	Gln	Thr	Ser	Gly
	31y 305	Ser	Val	Tyr	Ser	11e 310	Ala	Val	Thr	Asn	His 315	His	Ile	Val	Cys	Gly 320
7	Chr	Tyr	Glu	Asn	Leu 325	Ile	His	Val	Trp	Asp 330	Ile	Glu	Ser	Lys	Glu 335	Gln
•	/al	Arg	Thr	Leu 340	Thr	Gly	His	Val	Gly 345	Thr	Val	Tyr	Ala	Leu 350	Ala	Val
1	le	Ser	Thr 355	Pro	Asp	Gln	Thr	Lys 360	Val	Phe	Ser	Ala	Ser 365	Tyr ,	Asp	Arg
S		Leu 370	Arg	Val	Trp	Ser	Met 375	Asp	Asn	Met	Ile	Cys 380	Thr	Gln	Thr	Leu
	eu 85	Arg	His	Gln	Gly	Ser 390	Val	Thr	Ala	Leu	Ala 395	Val	Ser	Arg	Gly	Arg 400
L	eu	Phe	Ser	Gly	Ala 405	Val	Asp	Ser	Thr	Val 410	Lys	Val	Trp	Thr	Cys 415	

<210> 609

<211> 48

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

WO 00/55173 PCT/US00/05881

570

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<211> 241
<212> PRT
<213> Homo sapiens
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<223> Kaa equals any of the naturally occurring L-amino acids
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<210> 610

<400> 610

Xaa 1		хаа	Gly	Arg 5		Хаа	Arg	Thr	Ala 10		Ser	Xaa	Phe	Gly 15	
Asn	Leu	Lys	Gly 20		Lys	Ile	Lys	Gly 25		Ala	Asp	Val	Ser 30	Gly	Gly
Val	Ser	Ala 35		Xaa	Ile	Ser	Leu 40	Gly	Glu	Gly	His	Leu 45	Ser	Val	Lys
Gly	Ser 50		Gly	Glu	Trp	Lys 55	Gly	Pro	Gln	Val	Ser 60		Ala	Leu	Asn
Leu 65	Asp	Thr	Ser	Lys	Phe 70	Ala	Gly	Gly	Leu	His 75	Phe	Ser	Gly	Pro	Lys 80
Val	Glu	Gly	Gly	Val 85	Lys	Gly	Gly	Gln	Ile 90	Gly	Leu	Gln	Ala	Pro 95	Gly
Leu	Ser	Val	Ser 100	Gly	Pro	Gln	Gly	His 105	Leu	Glu	Ser	Gly	Ser 110	Gly	Lys
Val	Thr	Phe 115	Pro	Lys	Met	Lys	11e 120	Pro	Lys	Phe	Thr	Phe 125	Ser	Gly	Arg
Glu	Leu 130	Val	Gly	Arg	Glu	Met 135	Gly	Val	Asp	Val	His 140	Phe	Pro	Lys	Ala
Glu 145	Ala	Ser	Ile	Gln	Ala 150	Gly	Ala	Gly	Asp	Gly 155	Glu	Trp	Glu	Glu	Ser 160
Glu	Val	Lys	Leu	Lys 165	Lys	Ser	Lys	Ile	Lys 170	Met	Pro	Lys	Phe	Asn 175	Phe
Ser	Lys	Pro	Lys 180	Gly	Lys	Gly	Gly	Val 185	Thr	Gly	Ser	Pro	Glu 190	Ala	Ser
Ile	Ser	Gly 195	Ser	Lys	Gly	Asp	Leu 200	Lys	Ser	Ser	Lys	Ala 205	Ser	Leu	Gly
Ser	Leu 210	Glu	Gly	Glu	Ala	Glu 215	Ala	Glu	Ala	Ser	Ser 220	Pro	Lys	Gly	Lys
Phe 225	Ser	Leu	Phe	Lys	Ser 230	Lys	Lys	Pro	Arg	His 235	Arg	Cys	Lys	Phe	Ile 240

Gln

WO 00/55173 PCT/US00/05881

572

<211> 77 <212> PRT

<213> Homo sapiens

<400> 611

His Tyr Arg Arg Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro Gly Ser 1 10 15

Thr His Ala Ser Gly Val Ala Asp Gly Gly Gln Val Phe Leu Phe Pro  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Glu Thr Gly Ser Val Gln Thr Ala Asn Ala His Arg Trp Pro Arg Gly 35 40 45

Gly Gly Ser Gln Gly Val Trp Val Phe Leu Gly Phe Phe Ser Val Val 50 55 60

Ser Phe Thr Gln Gly Trp Trp Ser Gln Pro Val Trp Cys 65 70 75

<210> 612

<211> 137

<212> PRT

<213> Homo sapiens

<400> 612

Leu Gln Val Pro Val Arg Asn Ser Gly Ser Pro Thr Arg Gln Ala Ala 1 5 10 15

Ala Met Thr Phe Cys Arg Leu Leu Asn Arg Cys Gly Glu Ala Ala Arg 20 25 30

Ser Leu Pro Leu Gly Ala Arg Cys Phe Gly Val Arg Val Ser Pro Thr 35 40 45

Gly Glu Lys Val Thr His Thr Gly Gln Val Tyr Asp Asp Lys Asp Tyr
50 55 60

Arg Arg Ile Arg Phe Val Gly Arg Gln Lys Glu Val Asn Glu Asn Phe
65 70 75 80

Ala Ile Asp Leu Ile Ala Glu Gln Pro Val Ser Glu Val Glu Thr Arg 85 90 95

Val Ile Ala Cys Asp Gly Gly Gly Gly Ala Leu Gly His Pro Lys Val 100 105 110

Tyr Ile Asn Leu Asp Lys Glu Thr Lys Thr Gly Thr Cys Gly Tyr Cys 115 120 125

<221> SITE <222> (116)

Gly Leu Gln Phe Arg Gln His His His

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130
<210> 613
<211> 122
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<213> Homo sapiens
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<223> Xaa equals any of the naturally occurring L-amino acids

4400> 613
Tyr Ser Thr Asp Asn Asn Asn Asn Trp Tyr Ser Ile Phe Tyr Leu His 15
Ser Ser Phe Leu Gly Glu Asn Ala Glu Lys Leu Gln Phe Lys Arg 25
Trp Phe Trp Ser Ile Val Glu Lys Met Ser Met Thr Glu Arg Gln Asp 45
Leu Xaa Tyr Phe Trp Thr Ser Ser Pro Ser Leu Pro Ala Ser Glu Glu Glu 50

Gly Phe Gln Pro Met Pro Ser Ile Thr Ile Xaa Pro Pro Asp Asp Xaa 65 70 75 80

His Leu Pro Thr Xaa Lys Tyr Leu His Phe Leu Asp Phe Thr Phe Pro 85 90 95

Leu Xaa Ser Phe Lys Gln Asp Ser Xaa Asn Arg Lys Leu Val Xaa Ser 100 105 110

Pro Phe Arg Xaa Gln Lys Phe Trp Val Leu 115 120

<210> 614 <211> 62 <212> PRT

<213> Homo sapiens

<400> 614

Phe Phe Ile Gly Leu Glu Thr Arg Ala Asn Ser Ile Met Phe Ser Lys  $1 \hspace{1cm} \dots \hspace{1cm} 5 \hspace{1cm} \dots 10 \hspace{1cm} 15$ 

Glu Thr Asp Leu Ser Cys Trp Ile Arg Gly Thr Asn Pro Thr Tyr Met
20 25 30

Ile Phe Phe Leu Phe Leu Ser Cys Ser Tyr Gly Thr Val Leu Phe Gly 35 40 45

Thr Phe Ala Thr Arg Asp Asn Thr Thr Phe Leu Thr Leu Ile 50 55 60

<21,0> 615

<211> 159

<212> PRT

<213> Homo sapiens

<40	0> 6	15													
Val 1	Gly	Leu	Pro	Asn 5	Met	Ala	Gln	Ser	Ile 10	Asn	Ile	Thr	Glu	Leu 15	Ası
Leu	Pro	Gln	Leu 20	Glu	Met	Leu	Lys	Asn 25	Gln	Leu	Asp	Gln	Glu 30	Val	Gli
Phe	Leu	Ser 35	Thr	Ser	Ile	Ala	Gln 40	Leu	Lys	Val	Val	Gln 45	Thr	Lys	Туг
Val	Glu 50	Ala	Lys	Asp	Cys	Leu 55	Asn	Val	Leu	Asn	Lys 60	Ser	Asn	Glu	Gly
Lys 65	Glu	Leu	Leu	Val	Pro 70	Leu	Thr	Ser	Ser	Met 75	туr	Val	Pro	Gly	Lys 80
Leu	His	Asp	Val	Glu 85	His	Val	Leu	Ile	Asp 90	Val	Gly	Thr	Gly	Tyr 95	Tyr
Val	Ģlu	Lys	Thr 100	Ala	Glu	Asp	Ala	Lys 105	Asp	Phe	Phe	Lys	Arg 110	Lys	Ile
Asp	Phe	Leu 115	Thr	Lys	Gln	Met	Glu 120	Lys	Ile	Gln	Pro	Ala 125	Leu	Gln	Glu
Lys	His 130	Ala	Met	Lys	Gln	Ala 135	Val	Met	Glu	Met	Met 140	Ser	Gln	Lys	Ile
31n 145	Gln	Leu	Thr	Ala	Leu 150	Gly	Ala	Ala	Gln	Ala 155	Thr	Ala	Lys	Ala	

<210> 616 <211> 93 <212> PRT <213> Homo sapiens

<220> <221> SITE <222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 616
Lys Val Ala Cys Arg Tyr Arg Xaa Gly Ile Pro Gly Arg Pro Thr Arg
1 5 10 15

Pro Gly Thr Gln Asp Ala Glu Gly Lys Lys Ala Lys Gly Lys Lys Val 20 25 30

Ala Pro Ala Pro Ala Val Val Lys Lys Gln Glu Ala Lys Lys Val Val 35 40 40 45

Asn Pro Leu Phe Glu Lys Arg Pro Lys Asn Phe Gly Ile Gly Gln Asp 50 55 60

Ile Gln Pro Lys Arg Asp Leu Thr Arg Phe Val Lys Trp Pro Arg Tyr 75 80

<210> 617

<211> 362

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (307)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 617

Ser Arg Val Asp Pro Arg Val Arg Arg Gly Val Pro Tyr Gln Leu Gly
1 5 10 15

Pro His Gly His Arg Gln Gly Leu Glu Ala Pro Leu Tyr Leu Thr Pro  $20 \\ 25 \\ 30$ 

Glu Gly Trp Ser Leu Phe Leu Gln Arg Tyr Tyr Gln Val His Glu

Gly Ala Glu Leu Arg His Leu Asp Thr Gln Val Gln Arg Cys Glu Asp 50 60

Ile Leu Gln Gln Leu Gln Ala Val Val Pro Gln Ile Asp Met Glu Gly 65 70 75 80

Asp Arg Asm Ile Trp Ile Val Lys Pro Gly Ala Lys Ser Arg Gly Arg 85 90 95

Gly Ile Met Cys Met Asp His Leu Glu Glu Met Leu Lys Leu Val Asn 100 105 110

Gly Asn Pro Val Val Met Lys Asp Gly Lys Trp Val Val Gln Lys Tyr
115 120 125

Ile Glu Arg Pro Leu Leu Ile Phe Gly Thr Lys Phe Asp Leu Arg Gln 130 135 140

145	Pne	ren	vaı	THE	150	Trp	Asn	Pro	Leu	Thr 155		Trp	Phe	Tyr	Arg 160
Asp	Ser	Tyr	Ile	Arg 165	Phe	Ser	Thr	Gln	Pro 170		Ser	Leu	Lys	Asn 175	Lei
Asp	Asn	Ser	Val 180	His	Leu	Cys	Asn	Asn 185	Ser	Ile	Gln	Lys	His 190	Leu	Glu
Asn	Ser	Cys 195	His	Arg	His	Pro	Leu 200	Leu	Pro	Pro	Asp	Asn 205	Met	Trp	Ser
Ser	Gln 210	Arg	Phe	Gln	Ala	His 215	Leu	Gln	Glu	Met	Gly 220	Ala	Pro	Asn	Ala
Trp 225	Ser	Thr	Ile	Ile	Val 230	Pro	Gly	Met	Lys	Asp 235	Ala	Val	Ile	His	Ala 240
Leu	Gln	Thr	Ser	Gln 245	Asp	Thr	Val	Gln	Cys 250	Arg	Lys	Ala	Ser	Phe 255	Glu
Leu	Tyr	Gly	Ala 260	Asp	Phe	Val	Phe	Gly 265	Glu	Asp	Phe	Gln	Pro 270	Trp	Leu
		275					280		Ala			285			
Ala	Arg 290	Leu	Суѕ	Ala	Gly	Val 295	Gln	Ala	Asp	Thr	Leu 300	Arg	Val	Val	Ile
Asp 305	Arg	Xaa	Leu	Asp	Arg 310	Asn	Суѕ	Asp	Thr	Gly 315	Ala	Phe	Glu	Leu	Ile 320
				325					Gln 330					335	
			340					345	Pro	Met	Ala	Met	Cys 350	His	Arg
Arg	Met	Gly 355	Val	Arg	Gln	Gln	Ser 360	Leu	Cys				•.		

<210> 618

<211> 328 ·

<212> PRT

<213> Homo sapiens

<400> 618

11	e Ard	g Me	t Ar	g Gli	ı Trp	Tr	o Val	l Gl	n Vai		y Lei	ı Le	u Ala	a Val	
Lei	ı Lei	ı Al	a Ala 20	а Туг )	r Leu	His	s Ile	2 Pro		Pro	Glr	ı Lei	30 Se		Ala
Lei	ı His	3 Se:	r Trg 5	Lys	Ser	Ser	Gly 40		5 Phe	e Phe	Thr	Ty:		Gly	Leu
Arg	3 Ile 50	Pho	э Туг	Glr	Asp	Ser 55		. Gly	/ Val	l Va]	. Gly 60		Pro	Glu	Ile
Va]	Val	Lei	ı Leu	His	Gly 70	Phe	Pro	Thr	Ser	Ser 75		Asp	Trp	туг	Lys 80
Ile	e Trp	Glu	ı Gly	Leu 85		Leu	Arg	Phe	His		Val	Ile	e Ala	Leu 95	_
Phe	. Leu	Gly	Phe 100		Phe	Ser	Asp	Lys 105		Arg	Pro	His	His 110		Ser
Ile	Phe	Glu 115	Gln	Ala	Ser	Ile	Val 120	Glu	Ala	Leu	Leu	Arg 125		Leu	Gly
Leu	Gln 130	Asn	Arg	Arg	Ile	Asn 135	Leu	Leu	Ser	His	Asp 140	Туr	Gly	Asp	Ile
Val 145	Ala	Gln	Glu	Leu	Leu 150	Tyr	Arg	Tyr	Lys	Gln 155	Asn	Arg	Ser	Gly	Arg 160
Leu	Thr	Ile	Lys	Ser 165	Leu	Cys	Leu	Ser	Asn 170	Gly	Gly	Ile	Phe	Pro 175	Glu
Thr	His	Arg	Pro 180	Leu	Leu	Leu	Gln	Lys 185	Leu	Leu	Lys	Asp	Gly 190	Gly	Val
Leu	Ser	Pro 195	Ile	Leu	Thr	Arg	Leu 200	Met	Asn	Phe	Phe	Val 205	Phe	Ser	Arg
Gly	Leu 210	Thr	Pro	Val	Phe	Gly 215	Pro	Tyr	Thr	Arg	Pro 220	Ser	Glu	Ser	Glu
Leu 225	Trp	Asp	Met	Trp	Ala 230	Gly	Ile	Arg	Asn	Asn 235	Asp	Gly	Asn	Leu	Val 240
Ile	Asp	Ser	Leu	Leu 245	Gln	Tyr	Ile	Asn	Gln 250	Arg	Lys	Lys	Phe	Arg 255	Arg
Arg	Trp	Val	Gly 260	Ala	Leu .	Ala		Val 265	Thr	Ile	Pro	Ile	His 270	Phe	Ile

Tyr Gly Pro Leu Asp Pro Val Asn Pro Tyr Pro Glu Phe Leu Glu Leu 275 280 285

Tyr Arg Lys Thr Leu Pro Arg Ser Thr Val Ser Ile Leu Asp Asp His 290 295 300

Ile Ser His Tyr Pro Gln Leu Glu Asp Pro Met Gly Phe Leu Asn Ala 305 310 315 320

Tyr Met Gly Phe Ile Asn Ser Phe 325

<210> 619

<211> 271

<212> PRT

<213> Homo sapiens

<400> 619

Asn Met Asp Pro Pro Gly Leu Gln Gly Val Gln Gly Thr Val Ala Ala 1 5 10 15

Cys Gly Ala Cys Tyr Trp Leu Leu Gly Leu Met Ala Val Arg Ala Ser 20 25 30

Phe Glu Asn Asn Cys Glu Ile Gly Cys Phe Ala Lys Leu Thr Asn Thr 35 40 45

Tyr Cys Leu Val Ala Ile Gly Gly Ser Glu Asn Phe Tyr Ser Val Phe 50 55 60

Glu Gly Glu Leu Ser Asp Thr Ile Pro Val Val His Ala Ser Ile Ala 65 70 75 80

Gly Cys Arg Ile Ile Gly Arg Met Cys Val Gly Asn Arg His Gly Leu 85 90 95

Leu Val Pro Asn Asn Thr Thr Asp Gln Glu Leu Gln His Ile Arg Asn 100 ' 105 110

Ser Leu Pro Asp Thr Val Gln Ile Arg Arg Val Glu Glu Arg Leu Ser 115 120 125

Ala Leu Gly Asn Val Thr Thr Cys Asn Asp Tyr Val Ala Leu Val His 130 135 140

Pro Asp Leu Asp Arg Glu Thr Glu Glu Ile Leu Ala Asp Val Leu Lys 145 150 155 160

Val Glu Val Phe Arg Gln Thr Val Ala Asp Gln Val Leu Val Gly Ser

WO 00/55173 PCT/US00/05881

580

165 170 175

Tyr Cys Val Phe Ser Asn Gln Gly Gly Leu Val His Pro Lys Thr Ser 180 185 190

Ile Glu Asp Gln Asp Glu Leu Ser Ser Leu Leu Gln Val Pro Leu Val

Ala Gly Thr Val Asn Arg Gly Ser Glu Val Ile Ala Ala Gly Met Val 210 220

Val Asn Asp Trp Cys Ala Phe Cys Gly Leu Asp Thr Thr Ser Thr Glu 225 230 235 240

Leu Ser Val Val Glu Ser Val Phe Lys Leu Asn Glu Ala Gln Pro Ser 245 250 255

Thr Ile Ala Thr Ser Met Arg Asp Ser Leu Ile Asp Ser Leu Thr 260 265 270

<210> 620

<211> 88

<212> PRT

<213> Homo sapiens

<400> 620

Gly Ser Ala Ala Met Lys Val Lys Ile Lys Cys Trp Asn Gly Val Ala 1 5 10 15

Thr Trp Leu Trp Val Ala Asn Asp Glu Asn Cys Gly Ile Cys Arg Met  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Ala Phe Asn Gly Cys Cys Pro Asp Cys Lys Val Pro Gly Asp Asp Cys
35 40 45

Pro Leu Val Trp Gly Gln Cys Ser His Cys Phe His Met His Cys Ile 50 60

Leu Lys Trp Leu His Ala Gln Gln Val Gln Gln His Cys Pro Met Cys
65 70 75 80

Arg Gln Glu Trp Lys Phe Lys Glu

85

<210> 621

<211> 46

<212> PRT

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<220>
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<400> 621
Ala Gly Thr Ser Arg Ser Glu Gly Lys Arg Ser Ser Val Leu Thr Arg
Thr Glu Phe Gln Ile Glu Met Phe Gln Thr Ile Glu Gly Glu Lys Trp
                                 25
Pro Gly Xaa Ser Ile Asn Leu Ser Xaa Phe His Gly Cys Phe
    . 35
                             40
<210> 622
<211> 103
<212> PRT
<213> Homo sapiens
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 622
Gly Arg Pro Thr Arg Pro Arg Gly Arg Gly Arg Ser Ser Ala Cys Leu
 1
                  5
                                     10
Leu Leu Glu Gly Asp Gly Pro Ala Arg Leu Trp Ala Pro Thr Ser Pro
                                 25
Gly Val Xaa Xaa Glu Arg Phe Ala Glu Glu Arg Gly Ser Gly Arg Ala
                            40
                                                 45
Leu Asn Ala Gly Pro Lys His Pro Gly Ser Leu His Ser Pro Arg Pro
```

Gln Thr Leu Thr Lys Thr Trp Ile Cys Ser Arg Phe Ser Cys Ser Arg 65 70 75 80

Ser Ser Arg Ser Cys Pro Arg Leu Leu Arg Leu Arg Ala Glu Lys Lys 85 90 95

Val Cys Gln Ala Trp Thr Gln 100

<210> 623

<211> 103

<212> PRT

<213> Homo sapiens

<220>

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<222> (60)

<223> Xaa equals any of the naturally occurring-L-amino acids

<400> 623

Gly Arg Pro Thr Arg Pro Thr Ser Ser Arg Ser Arg Ala Ala Arg Pro 1 5 10 15

Phe Phe Phe Phe Phe Phe Phe Trp Phe Pro Glu Phe Gly Phe Ile Leu 20 25 30

Gln Tyr Arg Asn His Leu Glu Pro Ser Glu Thr Asp Ile Pro Glu Ala 35 40 45

Glu Ala Leu Ser Asn Gln Tyr Cys Val Ala Leu Xaa Pro Leu Arg Lys 50 60

Pro His Leu Gly Tyr Lys Arg Ser Phe Tyr Val Tyr Pro Leu Tyr His 65 70 75 80

Ala Gln Arg Leu Pro Ser Glu 100

<210> 624

<211> 305

<212> PRT

<213> Homo sapiens

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	1> 5														
	:3> x	(117) (aa e		s an	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	ds
	1> s	ITE													
		219) aa e		s an	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	ds
			Leu	Trp 5		Ser	Cys	Pro	Val		Thr	Met	Asp	Pro 15	Glu
Val	Thr	Leu	Leu 20		Gln	Cys	Pro	Gly 25	Gly	Gly	Leu	Pro	Gln 30	Glu	Gln
Ile	Gln	Ala 35	Glu	Leu	Ser	Pro	Ala 40	His	Asp	Arg	Arg	Pro 45	Leu	Pro	Gly
Gly	Asp 50		Ala	Ile	Thr	Ala 55	Ile	Trp	Glu	Thr	Arg 60	Leu	Lys	Ala	Gln
Pro 65	Trp	Leu	Phe	Asp	Ala 70	Pro	Lys	Phe	Arg	Leu 75	His	Ser	Ala	Thr	Leu 80
Ala	Pro	Ile	Gly	Ser 85	Arg	Gly	Pro	Gln	Leu 90	Leu	Leu	Arg	Leu	Gly 95	Leu
Thr	Ser	Tyr	Arg 100	Asp	Phe	Leu	Gly	Thr 105	Asn	Trp	Ser	Ser	Ser 110	Ala	Ala
Trp	Leu	Arg 115	Xaa	Xaa	Gly	Ala	Thr 120	Asp	Trp	Gly	Asp	Thr 125	Gln	Ala	Tyr
Leu	Ala 130	Asp	Pro	Leu	Gly	val 135	Gly	Ala	Ala	Leu	Ala 140	Thr	Ala	Asp	Asp
Phe 145	Leu	Val	Phe	Leu	Arg 150	Arg	Ser	Arg	Gln	Val 155	Ala	Glu	Ala	Pro	Gly 160
Leu	Val	Asp	Val	Pro 165	Gly	Gly	His	Pro	Glu 170	Pro	Gln	Ala	Leu	Cys 175	Pro
Gly	Gly	Ser	Pro 180		His	Gln		Leu 185		Gly	Gln	Leu	Val	Val	His

Gl	u Le	u Ph 19	e Se 5	r Se	r Va	l Le	u G1 20	n Gl	u Il	е Су:	s Asp	Glu 205		Asn	Leu
Pr	o Le 21	u Le 0	u Th	r Le	u Sei	c G1:	n Pro	o Le	u Le	u Xaa	a Gly 220		. Ala	Arg	Asn
G1: 22:	u Th 5	r Se	r Al	a Gl	y Arg 230	g Ala	a Se:	r Ala	a Gla	235		Val	Gln	Cys	Ser 240
Lei	u Th	r Se	r Gl	u Gli 249	n Val	L Arç	Ly:	s His	Туі 250		ı Ser	Gly	Gly	Pro 255	Glu
Ala	a Hi:	s Gl	u Sei 260	Thi	Gly	7 Il∈	Ph€	Phe 265		Glu	Thr	Gln	Asn 270	Val	Arg
Arq	j Lei	275	o Glu 5	1 Thr	Glu	Met	Trp 280	Ala	Glu	ı Leu	Cys	Pro 285	Ser	Pro	Lys
Ala	290	Sei	s Ser	Ser	Thr	Thr 295	Gly	Phe	Arg	Glu	Val	Pro	Leu	Glu	Arg
Pro 305															
	0> 6														
	1> 1 2> P														
			sapi	ens											
<40	0> 6	25													
Ser 1	Ala	Met	Lys	Ala 5	Ser	Gly	Thr	Leu	Arg 10	Glu	туr	Lys	Val	Val 15	Gly
Arg	Cys	Leu	Pro 20	Thr	Pro	Lys	Cys	Arg 25	Thr	Pro	Pro	Leu	Tyr 30	Arg	Met
Arg	Ile	Phe 35	Ala	Pro	Asn	His	Val 40	Val	Ala	Lys	Ser	Arg 45	Phe	Trp	Tyr
Phe	Val 50	Ser	Gln	Leu	Lys	Lys 55	Met	Lys	Lys	Ser	Ser 60	Gly	Glu	Ile	Val
Tyr 65	Cys	Gly	Gln	Val	Phe 70	Glu	Lys	Ser	Pro	Leu 75	Arg	Val :	Lys .	Asn 1	Phe 80
Gly	Ile	Trp	Leu	Arg 85	Туг	Asp	Ser	Arg	Ser 90	Gly	Thr	His I	Asn i	Met 1	fyr

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Arg Gly Val Pro Gly Thr 100
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Ser Ile Glu Cys Arg Gly Ile Gln Gly Met Gly 50 55

<210> 627 <211> 220 <212> PRT <213> Homo sapiens <220> <221> SITE

<221> SITE <222> (93)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 627

Arg Leu Val Val Thr Glu Glu Asp Gly Gly Ala Arg Pro Glu Ala Leu

1 5 10 15

Gly Lys Ile Ala Pro Arg Thr Pro Ala Glu Leu Gly Ala Arg Ala Asp 20 25 30

Gln Glu Leu Val Thr Ala Leu Met Cys Asp Leu Arg Arg Pro Ala Ala 35 40 45

Gly Gly Met Met Asp Leu Ala Tyr Val Cys Glu Trp Glu Lys Trp Ser

WO 00/55173 PCT/US00/05881

586

60 55 Lys Ser Thr His Cys Pro Ser Val Pro Leu Ala Cys Ala Trp Ser Cys 75 70 Arg Asn Leu Ile Ala Phe Thr Met Asp Leu Arg Thr Xaa Asp Gln Asp Leu Thr Arg Met Ile His Ile Leu Asp Thr Glu His Pro Trp Asp Leu 105 His Ser Ile Pro Ser Glu His His Glu Ala Ile Thr Cys Leu Glu Trp 120 125 115 Asp Gln Ser Gly Ser Arg Leu Leu Ser Ala Asp Ala Asp Gly Gln Ile Lys Cys Trp Ser Met Ala Asp His Leu Ala Asn Ser Trp Glu Ser Ser 150 155 145 Val Gly Ser Leu Val Glu Gly Asp Pro Ile Val Ala Leu Ser Trp Leu 170 His Asn Gly Val Lys Leu Ala Leu His Val Glu Lys Ser Gly Ala Ser 180 185 Ser Phe Gly Glu Lys Phe Ser Arg Val Lys Phe Ser Pro Val Leu Thr 200 Leu Phe Gly Gly Lys Pro Trp Arg Ala Gly Ser Arg 215 <210> 628 <211> 119 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (115)

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<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (117)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 628
Pro Ala Ser Val Glu Val Tyr His Asp Ser Leu Cys Arg Lys Ile Trp

. 5 Arg Glu Asp Asp Lys Trp His Val Ile Phe Arg Ala Asp Gly Trp Glu 20 25 Gln His Ile Thr Ala Arg Tyr Leu Val Gly Ala Asp Gly Ala Asn Ser 40 Met Val Arg Arg His Leu Tyr Pro Asp His Gln Ile Arg Lys Tyr Val 55 Ala Ile Gln Gln Trp Phe Ala Glu Lys His Pro Val Pro Phe Tyr Ser Cys Ile Phe Asp Asn Ser Ile Thr Asn Cys Tyr Ser Trp Ser Ile Ser 90 Lys Asp Gly Tyr Phe Ile Phe Gly Gly Ala Tyr Pro Met Glu Arg Arg 100 105 Ser Asp Xaa Phe Xaa Asp Ala 115 <210> 629 <211> 39 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (30) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (31) <223> Xaa equals any of the naturally occurring L-amino acids <400> 629 Phe Gly Glu Pro Ser Leu Thr Val Arg Ala Asp Ile Thr Gly Arg Tyr 10 15 Ser Ile Val Ser Met Leu Thr Thr Cys Arg Tyr Ser Leu Xaa Xaa His 25

Met Lys Lys Val Ser Ser Cys

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<211	> 26	7													
<212	> PR	T													
<213	> Ho	mo s	apie	ns											
<400	> 63	0													
Ser	Ala	Ala	Leu	Pro	Gln	Pro	Thr	Pro	Pro	Leu	Thr	Leu	Pro	Gln	Ser
1				5					10					15	
•															
Mat.	(/ a )	Acn	Thr	T.vs	Pro	Glu	Lvs	Thr	Glu	Glu	Asp	Ser	Glu	Glu	Val
rie C	vai		20	-7-				25			•		30		
			20												
_		<b>~1</b>	*		Lys	mh -	Dha	17a l	Glu	T.vc	ጥህም	Glu	T.vs	Gln	Ile
Arg	GLu		гÀг	HIS	гур	TIIT	40	val	GIU	212	-1-	45			
		35					40					13			
						•		m		7 ~~	cor	Cln	Tue	Trace **	T.en
Lys	His	Phe	Gly	Met	Leu		Arg	Trp	Asp	ASP		GIII	гуу	TYL	ДСu
	50					55					60				
												_			1
Ser	Asp	Asn	Val	His	Leu	Val	Cys	Glu	Glu		Ala	Asn	Tyr	Leu	
65					70					75					80
Ile	Trp	Cys	Ile	Asp	Leu	Glu	Val	Glụ	Glu	Lys	Cys	Ala	Leu	Met	Glu
				85				٠.	90					95	
Gln	Val	Ala	His	Gln	Thr	Ile	Val	Met	Gln	Phe	Ile	Leu	Glu	Leu	Ala
			100					105					110		
T	Car	LON	T.17 G	Val	Asp	Pro	Ara	Ala	Cvs	Phe	Arg	Gln	Phe	Phe	Thr
гÃ2	361	115	ny 3	vul			120		-1-	•	-	125			
		113													
_		•	m\		Asp	7	C1 n	Ф	Mat	Glu	Glv	Phe	Asn	Asp	Glu
Lys		гÀг	THE	Ala	ASP		G1.11	TÄT	Het	GIU	140				
	130					135					140				
			_			_	•		<b>~1</b>	•	.1.	T	T 011	A ra	T10
Leu	Glu	Ala	Phe	Lys	Glu	Arg	vai	Arg	GIY			гуу	Leu	ALG	160
145					150					155					160
													_		
Glu	Lys	Ala	Met	Lys	Glu	Tyr	Glu	Glu	Glu	Glu	Arg	Lys	Lys		
				165					170					175	
Gly	Pro	Gly	Gly	Leu	Asp	Pro	Val	Glu	Val	Tyr	Glu	Ser	Leu	Pro	Glu
_		_	180					185					190		
Glu	T.eu	Gln	Lvs	Cvs	Phe	Asp	Val	Lys	Asp	Val	Gln	Met	: Leu	Gln	Asp
0	200	195		-1-		•	200		•			205			
		175													
	-1-			Wat	Asp	Dro	mhr	. Acr	. 11=	T.VC	. Tvr	· His	: Met	: Glr	Arc
ALA			ъys	riet	. nsp	215		-12		. ~1	220				
	210	'				213	•					•			
		_				m	17~1	D			- T.,,	- רא	507	٠١٠ -	בום ו
_		Asp	ser	GIY	Leu		, val		, ASI			. 4770	. 561	. 510	240
225					230	,				235	,				240

Lys Glu Gly Glu Glu Ala Gly Pro Gly Asp Pro Leu Leu Glu Ala Val 245 250 255

Pro Lys Thr Gly Asp Glu Lys Asp Val Ser Val 260 265

<210> 631

<211> 207

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (164)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 631

Pro Thr Gly Thr Gly Ser Gly Val Pro Gly Leu Gly Arg Asn Gly Gly
1 5 10 15

Arg Glu Gly Ala Pro Gly Thr Met Gly Leu Leu Thr Ile Leu Lys Lys 20 25 30

Met Lys Gln Lys Glu Arg Glu Leu Arg Leu Leu Met Leu Gly Leu Asp 35 40 45

Asn Ala Gly Lys Thr Thr Ile Leu Lys Lys Phe Asn Gly Glu Asp Ile 50 55 60

Asp Thr Ile Ser Pro Thr Leu Gly Phe Asn Ile Lys Thr Leu Glu His 65 70 75 80

Arg Gly Phe Lys Leu Asn Ile Trp Asp Val Gly Gly Gln Lys Ser Leu 85 90 95

Arg Ser Tyr Trp Arg Asn Tyr Phe Glu Ser Thr Asp Gly Leu Ile Trp 100 105 110

Val Val Asp Ser Ala Asp Arg Gln Arg Met Gln Asp Cys Gln Arg Glu 115 120 125

Leu Gln Ser Leu Leu Val Glu Glu Arg Leu Ala Gly Ala Thr Leu Leu 130 135 140

Ile Phe Ala Asn Lys Gln Asp Leu Pro Gly Ala Leu Ser Ser Asn Ala 145 150 155 160

Ile Arg Glu Xaa Leu Glu Leu Asp Ser Ile Arg Ser His His Trp Cys

WO 00/55173 PCT/US00/05881

590

. 170 165 175 Ile Gln Gly Cys Ser Ala Val Thr Gly Glu Asn Leu Leu Pro Gly Ile 180 185 Asp Trp Leu Leu Asp Asp Ile Ser Ser Arg Ile Phe Thr Ala Asp 200 <210> 632 <211> 79 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (54) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (60) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (61) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (73) <223> Xaa equals any of the naturally occurring L-amino acids <400> 632 Lys Asn Asn Lys Lys Asp Gln Gln Asn Gly Ile Cys Ser His Thr Met 10 Ile Lys Thr Tyr Leu Arg Thr Ala Leu Phe Met Gly Lys Arg Ser Leu 20 25 Ile Asp Ser Gln Phe His Arg Leu Tyr Arg Arg His Gly Leu Gly Arg Pro Gln Gly Asn Leu Xaa Ser Met Val Glu Gly Xaa Xaa Gly Ser Met His His Leu His Trp Pro Glu Gln Kaa Glu Arg Glu Gln Ile Trp

<210> 633 <211> 293 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (249) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (282) <223> Xaa equals any of the naturally occurring L-amino acids <400> 633 Trp Ser Pro Ser Pro Pro Ala Thr Pro Glu Gln Gly Leu Ser Ala Phe Tyr Leu Ser Tyr Phe Asp Met Leu Tyr Pro Glu Asp Ser Ser Trp Ala 20 25 Ala Lys Ala Pro Gly Ala Ser Ser Arg Glu Glu Pro Pro Glu Glu Pro Glu Gln Cys Pro Val Ile Asp Ser Gln Ala Pro Ala Gly Ser Leu Asp Leu Val Pro Gly Gly Leu Thr Leu Glu Glu His Ser Leu Glu Gln Val Gln Ser Met Val Val Gly Glu Val Leu Lys Asp Ile Glu Thr Ala Cys 85 90 Lys Leu Leu Asn Ile Thr Ala Asp Pro Met Asp Trp Ser Pro Ser Asn 105 Val Gln Lys Trp Leu Leu Trp Thr Glu His Gln Tyr Arg Leu Pro Pro 115 120 125 Met Gly Lys Ala Phe Gln Glu Leu Ala Gly Lys Glu Leu Cys Ala Met 140 Ser Glu Glu Gln Phe Arg Gln Arg Ser Pro Leu Gly Gly Asp Val Leu 145 150 155 His Ala His Leu Asp Ile Trp Lys Ser Ala Ala Trp Met Lys Glu Arg 165 170

Thr Ser Pro Gly Ala Ile His Tyr Cys Ala Ser Thr Ser Glu Glu Ser 180 185 190

Trp Thr Asp Ser Glu Val Asp Ser Ser Cys Ser Gly Gln Pro Ile His
195 200 205

Leu Trp Gln Phe Leu Lys Glu Leu Leu Leu Lys Pro His Ser Tyr Gly 210 215 220

Arg Phe Ile Arg Trp Leu Asn Lys Glu Lys Gly Ile Phe Lys Ile Glu 225 230 235 240

Asp Ser Ala Gln Val Ala Arg Leu Xaa Gly Ile Arg Lys Asn Arg Pro 245 250 255

Ala Met Asn Tyr Asp Lys Leu Ser Arg Ser Ile Arg Gln Tyr Tyr Lys 260 265 270

Lys Gly Ile Ile Arg Lys Pro Asp Ile Xaa Gln Arg Leu Val Tyr Gln 275 280 285

Phe Val His Pro Ile 290

<210> 634

<211> 227

<212> PRT

<213> Homo sapiens

<400> 634

Pro Ala Gly Thr Gly Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Ala 1 5 10 15

Glu Glu Glu Glu Pro Gln Gln Arg Gly Gln Gly Glu Lys Ser Ala 35 40 45

Thr Pro Ser Arg Lys Ile Leu Asp Pro Asn Thr Gly Glu Pro Ala Pro 50 55 60

Val Leu Ser Ser Pro Pro Pro Ala Asp Val Ser Thr Phe Leu Ala Phe 65 70 75 80

Pro Ser Pro Glu Lys Leu Leu Arg Leu Gly Pro Lys Ser Ser Val Leu 85 90 95

Ile Ala Gln Gln Thr Asp Thr Ser Asp Pro Glu Lys Val Val Ser Ala

			100					105					110		
Phe	Leu	Lys 115	Val	Ser	Ser	Val	Phe 120	Lys	Asp	Glu	Ala	Thr 125	Val	Arg	Met
Ala	Val 130	Gln	Asp	Ala	Val	Asp 135		Leu	Met	Gln	Lys 140	Ala	Phe	Asn	Ser
Ser 145	Ser	Phe	Asn	Ser	Asn 150	Thr	Phe	Leu	Thr	Arg 155	Leu	Leu	Val	His	Met 160
Gly	Leu	Leu	Lys	Ser 165	Glu	Asp	Lys	Val	Lys 170	Ala	Ile	Ala	Asn	Leu 175	Туг
Gly	Pro	Leu	Met 180	Ala	Leu	Asn	His	Met 185	Val	Gln	Gln	Asp	Туг 190	Phe	Pro
Lys	Ala	Leu 195	Ala	Pro	Leu	Leu	Leu 200	Ala	Phe	Val	Thr	Lys 205	Pro	Asn	Ser
Ala	Leu 210	Glu	Ser	Суѕ	Ser	Phe 215	Ala	Arg	His	Ser	Leu 220	Leu	Gln	Thr	Leu
Tyr 225	Lys	Val										٠.			
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	2> PI 3> Ho		apie	ens											
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Thr 1	Ser	Gly	Cys	Ile 5	Ser	Asn	Gly	Lys	Met 10	Ser	Ser	Asn	Val	Pro 15	Ala
Asp	Met	Ile	Asn 20	Leu	Arg	Leu	Ile	Leu 25	Val	Ser	Gly	Lys	Thr 30	Lys	Glu
Phe	Leu	Phe 35	Ser	Pro	Asn	Asp	Ser 40	Ala	Ser	Asp	Ile	Ala 45	Lys	His	Val
Tyr	Asp 50	Asn	Trp	Pro	Met	Asp 55	Trp	Glu	Glu	Glu	Gln 60	Val	Ser	Ser	Pro
Asn 65	Ile	Leu	Arg	Leu	Ile 70	Tyr	Gln	Gly	Arg	Phe 75	Leu	His	Gly	Asn	Val

Thr Leu Gly Ala Leu Lys Leu Pro Phe Gly Lys Thr Thr Val Met His 85 90 95

Leu Val Ala Arg Glu Thr Leu Pro Glu Pro Asn Ser Gln Gly Gln Arg 100 105 110

Asn Arg Glu Lys Thr Gly Glu Ser Asn Cys Cys Val Ile Leu 115 120 125

<210> 636

<211> 195

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (96)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 636

Val Ser Gly Phe Ala Gly Pro Ala Ser Leu Ile Ser Met Lys Leu Leu 1 5 10 15

Ser Leu Val Ala Val Val Gly Cys Leu Leu Val Pro Pro Ala Glu Ala 20 25 30

Asn Lys Ser Ser Glu Asp Ile Arg Cys Lys Cys Ile Cys Pro Pro Tyr 35 40 45

Arg Asn Ile Ser Gly His Ile Tyr Asn Gln Asn Val Ser Gln Lys Asp 50 55 60

Cys Asn Cys Leu His Val Val Glu Pro Met Pro Val Pro Gly His Asp

Val Glu Ala Tyr Cys Leu Leu Cys Glu Cys Arg Tyr Glu Glu Arg Xaa 85 90 95

Thr Thr Thr Ile Lys Val Ile Ile Val Ile Tyr Leu Ser Val Val Gly
100 105 110

Ala Leu Leu Tyr Met Ala Phe Leu Met Leu Val Asp Pro Leu Ile 115 120 125

Arg Lys Pro Asp Ala Tyr Thr Glu Gln Leu His Asn Glu Glu Glu Asn 130 135 140

Glu Asp Ala Arg Ser Met Ala Ala Ala Ala Ala Ser Leu Gly Gly Pro 145 150 155 160

Arg Ala Asn Thr Val Leu Glu Arg Val Glu Gly Ala Gln Gln Arg Trp

165 170 175 Lys Leu Gln Val Gln Glu Gln Arg Lys Thr Val Phe Asp Arg His Lys 185 Met Leu Ser 195 <210> 637 <211> 159 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (92) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (115) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (138) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE. <222> (151) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (156) <223> Xaa equals any of the naturally occurring L-amino acids <400> 637 Arg Pro Thr Arg Pro Gly Asn Ser Arg Arg Arg Gly Arg Arg Gly Cys Trp Arg Leu Leu Gly Phe Gly Ala Ala Ala Ile Met Pro Gly Ile Val 25 30 Glu Leu Pro Thr Leu Glu Asp Leu Lys Val Gln Glu Val Lys Val Ser 40

Ser Ser Val Leu Lys Ala Ala Ala His His Tyr Gly Val Gln Cys Asp

WO 00/55173 PCT/US00/05881

596

Lys Pro Asn Lys Glu Phe Met Leu Cys Arg Trp Glu Glu Lys Asp Pro 80

Arg Arg Cys Leu Glu Glu Gly Lys Leu Val Asn Xaa Cys Ala Leu Asp 90

Phe Phe Arg Gln Ile Lys Leu Ser Leu Cys Arg Ala Phe Tyr Arg Leu 100

Leu Asp Xaa His Arg Leu Leu Arg Pro Ala Val Phe Ser Ser Leu Pro 115

Gln Thr Ala Gly Gln Phe Asp Asp Val Xaa Gly Ala Thr Gly Met Val 130

Arg Leu Asn Trp Gly Lys Xaa Ser Ser His Gln Xaa Glu Asn Ser Ser 145

<210> 638

<210> 638 <211> 20 <212> PRT <213> Homo sapiens

<400> 638

Phe Ser Arg Asp Lys Val Ser Pro Cys Trp Pro Gly Trp Ser Arg Thr
1 5 10 15

Pro Gly Leu Arg

<210> 639 <211> 408 <212> PRT <213> Homo sapiens

<400> 639
Thr Trp Gly Gln Thr Pro Cys Ser Pro Gly His Gly Gln Arg Pro Ser

Ser Thr Cys Leu Thr Val Gly Pro Gly Gly Pro Ser Leu Gly Arg \$20\$ \$25\$ \$30

Pro Cys Pro Gln Leu Leu Eun Gln Phe Gly Val Leu Phe Cys Thr Ile 35 40 45

Leu	. Let		ı Let	Trp	Val	Ser 55		Phe	. Leu	Tyr	Gly 60		Phe	туг	Tyr
Ser 65		Met	t Pro	Thr	Val 70	Ser	His	Leu	Ser	Pro 75		His	Phe	Tyr	Tyr 80
Arg	Thr	: Asg	Cys	Asp 85		Ser	Thr	Thr	Ser 90		Cys	Ser	Phe	Pro 95	
Ala	Asn	ı Val	100	Leu	Thr	Lys	Gly	Gly 105		Asp	Arg	Val	Leu 110	Met	Tyr
Gly	Gln	115		Arg	Val	Thr	Leu 120	Glu	Leu	Glu	Leu	Pro 125		Ser	Pro
Val	Asn 130		Asp	Leu	Gly	Met 135	Phe	Leu	Val	Thr	Ile 140	Ser	Cys	Tyr	Thr
Arg 145	Gly	Gly	Arg	Ile	Ile 150	Ser	Thr	Ser	Ser	Arg 155	Ser	Val	Met	Leu	His 160
Tyr	Arg	Ser	Asp	Leu 165	Leu	Gln	Met	Leu	Asp 170	Thr	Leu	Val	Phe	Ser 175	Ser
Leu	Leu	Leu	Phe 180	Gly	Phe	Ala	Glu	Gln 185	Lys	Gln	Leu	Leu	Glu 190	Val	Glu
Leu	Tyr	Ala 195	Asp	туг	Arg	Glu	Asn 200	Ser	Tyr	Val	Pro	Thr 205	Thr	Gly	Ala
Ile	11e 210	Glu	Ile	His	Ser	Lys 215	Arg	Ile	Gln	Leu	Tyr 220	Gly	Ala	Tyr	Leu
Arg 225	Ile	His	Ala	His	Phe 230	Thr	Gly	Leu	Arg	Tyr 235	Leu	Leu	Tyr	Asn	Phe 240
Pro	Met	Thr	Cys	Ala 245	Phe	Ile	Gly	Val	Ala 250	Ser	Asn	Phe	Thr	Phe 255	Leu
Ser	Val	Ile	Val 260	Leu	Phe	Ser	Tyr	Met 265	Gln	Trp	Val	Trp	Gly 270	Gly	Ile
rp	Pro	Arg 275	His	Arg	Phe		Leu 280	Gln	Val	Asn	Ile	Arg 285		Arg	Asp
\sn	Ser 290	Arg	Lys	Glu	Val	Gln 295	Arg	Arg	Ile		Ala 300	His	Gln	Pro	Gly
ro 05	Glu	Gly	Gln	Glu	Glu 310	Ser	Thr	Pro		Ser 315	Asp	Val	Thr	Glu	Asp 320

WO 00/55173 PCT/US00/05881

598

Gly Glu Ser Pro Glu Asp Pro Ser Gly Thr Glu Gly Gln Leu Ser Glu 325 330 Glu Glu Lys Pro Asp Gln Gln Pro Leu Ser Gly Glu Glu Glu Leu Glu 340 345 Pro Glu Ala Ser Asp Gly Ser Gly Ser Trp Glu Asp Ala Ala Leu Leu 360 Thr Glu Ala Asn Leu Pro Ala Pro Ala Pro Ala Ser Ala Ser Ala Pro 375 380 Val Leu Glu Thr Leu Gly Ser Ser Glu Pro Ala Gly Gly Ala Leu Arg 395 Gln Arg Pro Thr Cys Ser Ser Ser 405 <210> 640 <211> 288 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (10) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (15) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (268) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

<220>

<221> SITE

<222> (271)

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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		274)													
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<22	0>											•			
<22	1> s	ITE													
<22	2> (	276)													
<22	3> X	aa e	qual	s an	y of	the	nat	ural	ly o	occui	ring	L-a	mino	aci	ds
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	1> s	ITE													
		286)													
				s an	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	ds
<10	0> 6	4 N													
					C	D=0	C = 14	*** 1	10						_
1	361	261	261	A 1 a		Pro	ser	vai	. xaa		Leu	Phe	Val	Xaa 15	Leu
Gly	Lys	Asn			Asp	Ala	Gln			Pro	Arg	Ala	Ser	Glu	Asp
			20					25					30		
Gln	Pro	Ser	Ser	Gly	Lvs	Pro	Val	Thr	Ser	Tvr	Pro	Glv	Glu	Cve	Glu
		35		•	•		40			-1-		45		C <sub>I</sub> 3	CLY
Phe		Phe	Thr	Lys	Glu	Ala	Ser	Leu	Glu	Ile	Arg	Asp	Met	Leu	Leu
	50					55					60				
בו מ	N.c.o	T	12-1	D	21-		• • •	<b>-</b>							
65	ASII	rys	vai	PIO	70	AIA	Ala	Arg	Ala		Ala	Ile	Ala	Pro	
0,5					70					75					80
Glu	Val	Thr	Val	Pro	Ala	Gľn	Asn	Thr	Glv	Leu	Gly	Pro	Glu	T.ve	ሞክተ
				85					90		,			95	1111
Ser	Phe	Phe	Gln	Ala	Leu	Gly	Ile	Thr	Thr	Lys	Ile	Ser	Arg	Gly	Thr
			100					105					110		
<b>71</b> -	<b>~1</b>	-1-	_	_				2				,			
11e	GIU		Leu	ser	Asp	Val		Leu	Ile	Lys	Thr		Asp	Lys	Val
		115				*	120					125			
Gly	Ala	Ser	Glu	Ala	Thr	Leu	Leu	Asn	Met	T.eu	Asn	Tla	Sor	Dro	Пho
. •	130					135				200	140	110	Ser	PIO	Pile
											110				
Ser	Phe	Gly	Leu	Ile	Ile	Gln	Gln	Val	Phe	Asp	Asn	Glv	Ser	Ile	Tvr
145					150					155		2			160
Asn	Pro	Glu	Val	Leu	Asp	Ile	Thr	Glu	Glu	Thr	Leu	His	Ser	Arg	Phe
				165					170					175	•
• -	۵,			_	_										
ren	Glu	GTÅ		Arg	Asn	Val	Ala		Val	Cys	Leu	Gln		_	Tyr
			180					185					190		

Pro	Thr	Val 195	Ala	Ser	Val	Pro	His 200	Ser	Ile	Ile	Asn	Gly 205	Tyr	Lys	Arg	
W = 1	Ton	21.	T	<b>~</b>												

Val Leu Ala Leu Ser Val Glu Thr Asp Tyr Thr Phe Pro Leu Ala Glu 210 215 220

Lys Val Lys Ala Phe Leu Ala Asp Pro Ser Ala Phe Val Ala Ala Ala 225 230 235 240

Pro Val Ala Ala Ala Thr Thr Ala Ala Pro Ala Ala Ala Ala Ala Pro 245 250 255

Ala Lys Val Glu Ala Lys Glu Glu Ser Glu Glu Xaa Asp Glu Xaa Ile
260 265 270

Xaa Xaa Ser Xaa Ile Ser Lys Ser Asn Asn Ser Ser Gln Xaa Ile Val 275 280 285

<210> 641

<211> 444

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 641

Asn Glu Gln Asp Asn Cys Val Leu Ile His Asp Val Asp Gln Arg Asn 1 5 10 15

Ser Asp Lys Asp Ile Phe Gly Asp Ala Cys Asp Asn Cys Leu Ser Val 20 25 30

Leu Xaa Asn Asp Gln Lys Asp Thr Asp Gly Asp Gly Asp Ala
35 40 45

Cys Asp Asp Met Asp Gly Asp Gly Ile Lys Asn Ile Leu Asp Asn 50 55 60

Cys Pro Lys Phe Pro Asn Arg Asp Gln Arg Asp Lys Asp Gly Asp Gly 65 70 75 80

Val Gly Asp Ala Cys Asp Ser Cys Pro Asp Val Ser Asn Pro Asn Gln
85 90

Ser	Asp	Val	Asp 100		Asp	Leu	Val	Gly 105	Asp	Ser	Cys	Asp	Thr 110	Asn	Gln
Asp	Ser	Asp 115	Gly	Asp	Gly	His	Gln 120	Asp	Ser	Thr	Asp	Asn 125	Cys	Pro	Thr
Val	Ile 130		Ser	Ala	Gln	Leu 135	Asp	Thr	Asp	Lys	Asp 140	Gly	Ile	Gly	Asp
Glu 145	Суs	Asp	Asp	Asp	Asp 150	Asp	Asn	Asp	Gly	Ile 155	Pro	Asp	Leu	Val	Pro 160
Pro	Gly	Pro	Asp	Asn 165	Cys	Arg	Leu	Val	Pro 170	Asn	Pro	Ala	Gln	Glu 175	Asp
Ser	Asn	Ser	Asp 180	Gly	Val	Gly	Asp	Ile 185	Cys	Glu	Ser	Asp	Phe 190	Asp	Gln
Asp	Gln	Val 195	Ile	Asp	Arg	Ile	Asp 200	Val	Cys	Pro	Glu	Asn 205	Ala	Glu	Val
Thr	Leu 210	Thr	Asp	Phe	Arg	Ala 215	туг	Gln	Thr	Val	Val 220	Leu	Asp	Pro	Glu
Gly 225	Asp	Ala	Gln	Ile	Asp 230	Pro	Asn	Trp	Val	Val 235	Leu	Asn	Gln	Gly	Met 240
Glu	Ile	Val	Gln	Thr 245	Met	Asn	Ser	Asp	Pro 250	Gly	Leu	Ala	Val	Gly 255	Tyr
Thr	Ala	Phe	Asn 260	Gly	Val	Asp	Phe	Glu 265	Gly	Thr	Phe	His	Val 270	Asn	Thr
Gln	Thr	Asp 275	Asp	Asp	Tyr	Ala	Gly 280	Phe	Ile	Phe	Gly	Туг 285	Gln	Asp	Ser
Ser	Ser 290	Phe	Tyr	Val	Val	Met 295	Trp	Lys	Gln	Thr	Glu 300	Gln	Thr	Tyr,	Trp
G1n 305	Ala	Thr	Pro	Phe	Arg 310	Ala	Val	Ala	Glu	Pro 315	Gly	Ile	Gln	Leu	Lys 320
Ala	Val	Lys	Ser	Lys 325	Thr	Gly	Pro	Gly	Glu 330	His	Leu	Arg	Asn	Ser 335	Leu
rp	His	Thr	Gly 340	Asp	Thr	Ser	Asp	Gln 345	Val	Arg	Leu	Leu	Trp 350	Lys	Asp
Ser	Arg	Asn 355	Val	Gly	Trp	Lys	Asp 360	Lys.	Val	Ser	Tyr	Arg 365	Trp	Phe	Leu

Gln His Arg Pro Gln Val Gly Tyr Ile Arg Val Arg Phe Tyr Glu Gly 375 Ser Glu Leu Val Ala Asp Ser Gly Val Thr Ile Asp Thr Thr Met Arg 390 395 Gly Gly Arg Leu Gly Val Phe Cys Phe Ser Gln Glu Asn Ile Ile Trp Ser Asn Leu Lys Tyr Arg Cys Asn Asp Thr Ile Pro Glu Asp Phe Gln 420 425 Glu Phe Gln Thr Gln Asn Phe Asp Arg Phe Asp Asn 435 440 <210> 642 <211> 326 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (50) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (296) <223> Xaa equals any of the naturally occurring L-amino acids <400> 642 Ser Ala Arg Ala Ser Asp Leu Gly Ala Pro Arg Thr Trp Thr Gly Ala 10 Ala Ala Gly Pro Arg Thr Pro Ser Ala His Ile Pro Val Pro Ala Gln 25 Arg Ala Thr Pro Gly Lys Ala Arg Leu Asp Glu Val Met Ala Ala

40

55

70

85

Ala Xaa Thr Ser Leu Ser Thr Ser Pro Leu Leu Gly Ala Pro Val

Ala Ala Phe Ser Pro Glu Pro Gly Leu Glu Pro Trp Lys Glu Ala Leu

Val Arg Pro Pro Gly Ser Tyr Ser Ser Ser Ser Asn Ser Gly Asp Trp

Gly	Trp	Asp	Leu 100		Ser	Asp	'Gln	Ser 105		Pro	Ser	Thr	Pro 110	Ser	Pro
Pro	Leu	Pro 115	Pro	Glu	Ala	Ala	His 120	Phe	Leu	Phe	Gly	Glu 125	Pro	Thr	Leu
Arg	Lys 130	Arg	Lys	Ser	Pro	Ala 135	Gln	Val	Met	Phe	Gln 140	Cys	Leu	тгр	Lys
Ser 145	Cys	Gly	Lys	Val	Leu 150	Ser	Thr	Ala	Ser	Ala 155	Met	Gln	Arg	His	Ile 160
Arg	Leu	Val	His	Leu 165	Gly	Arg	Gln	Ala	Glu 170	Pro	Asp	Gln	Ser	Asp 175	Gly
Glu	Glu	Asp	Phe 180	Tyr	Tyr	Thr	Glu	Leu 185	Asp	Val	Gly	Val	Asp 190	Thr	Leu
Thr	Asp	Gly 195	Leu	Ser	Ser	Leu	Thr 200	Pro	Val	Ser	Pro	Thr 205	Ala	Ser	Met
Pro	Pro 210	Ala	Phe	Pro	Arg	Leu 215	Glu	Leu	Pro	Glu	Leu 220	Leu	Glu	Pro	Pro
Ala 225	Leu	Pro	Ser	Pro	Leu 230	Arg	Pro	Pro	Ala	Pro 235	Pro	Leu	Pro	Pro	Pro 240
Pro	Val	Leu	Ser	Thr 245	Val	Ala	Asn	Pro	Gln 250	Ser	Cys	His	Ser	Asp 255	Arg
Val	Tyr	Gln	Gly 260	Cys	Leu	Thr	Pro	Ala 265	Arg	Leu	Glu	Pro	Gln 270	Pro	Thr
Glu	Val	Gly 275	Ala	Cys	Pro	Pro	Ala 280	Leu	Ser	Ser	Arg	Ile 285	Gly	Val	Thr
Leu	Arg 290	Lys	Pro	Arg	Gly	Asp 295	Xaa	Lys	Lys	Cys	Arg 300	Lys	Val	Tyr	Gly
Met 305	Glu	Arg	Arg	Asp	Leu 310	Trp	Cys	Thr	Ala	Cys 315	Arg	Trp	Lys	Lys	Ala 320
Cys	Gln	Arg	Phe	Leu 325	Asp										

<210> 643

<211> 129

<212> PRT

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<213> Homo sapiens
<220>
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<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 643
Asp Val Arg Leu Ser Gly Arg Asn Xaa Xaa Val Asp Val Xaa Asp His
                                     10
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Gln Xaa Xaa Leu Leu Glu Gln Xaa Asp Leu Leu Ala Gly Leu Ile Ser 20 25 30

Asn Ser Ser Asp Ala Xaa Asp Lys Ile Arg Tyr Glu Ser Leu Thr Asp 35 40 45

Pro Ser Lys Leu Asp Ser Gly Lys Glu Leu His Ile Asn Leu Ile Pro 50 55 60

Asn Lys Gln Asp Arg Thr Leu Thr Ile Val Gly Tyr Arg Asp Arg Met
65 70 75 80

Thr Lys Ala Asp Leu Ile Asn Asn Leu Gly Thr Ile Ala Xaa Ser Gly
85 90 95

Thr Lys Ala Phe Met Glu Xaa Leu Gln Ala Gly Ala Asp Ile Ser Met 100 105 110

Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser Ala Tyr Leu Val Ala Arg 115 120 125

Arg

<210> 644

<211> 156

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 644

Ser Thr His Ala Ser Ala Ser Arg Arg Leu Leu Xaa Asp Val Cys Gln
1 5 10 15

Asp Cys Ile Gln Met Val Thr Asp Ile Gln Thr Ala Val Arg Thr Asn 20 25 30

Ser Thr Phe Val Glu Ala Leu Val Asp His Ala Lys Ala Gln Cys Asp 35 40 45

Leu Leu Gly Pro Gly Met Ala Asp Met Cys Lys Asn Tyr Ile Asn Gln 50 55 60

Tyr Ser Asp Ile Ala Val Gln Met Met His Met Gln Pro Lys Glu
65 70 . 75 80

WO 00/55173 PCT/US00/05881

606

Ile Cys Gly Leu Val Gly Phe Cys Asp Gln Val Lys Glu Met Pro Met
85 90 95

Gln Thr Leu Ile Pro Ala Lys Ala Val Ser Glu Asn Val Ile Pro Ala 100 . 105 110

Leu Glu Leu Val Glu Pro Ile Lys Lys Asp Thr Val Gln Ala Lys Thr 115 120 125

Ser Val Ser Cys Gly Asp Met Arg Val Thr Trp Leu Lys Glu Val Ala 130 135 140

Lys Leu His Trp Thr Thr Thr Gly Leu Arg Lys Lys 145 150 155

<210> 645

<211> 115

<212> PRT

<213> Homo sapiens

<400> 645

Ala Asp Pro Gly Val Gly Ala Val Pro Gly Leu Ala Ala Asp Leu Ala 1 5 10 15

Thr Ala Ala Arg Ser Leu Gly Pro Ala Leu Val Leu Asp Leu Gly Arg
20 25 30

Pro Pro Ser Pro Asp Pro His Glu Gly Pro Ser Pro Ser Pro Arg Arg
35 40 45

Ser Pro Asp Leu Val Arg Gly Pro Gly Pro Gly Leu Gly Pro Gly Val 50 55 60

Leu Pro Gln Cys Pro Arg Gly Asn Pro Asn Pro Gly Arg Asp Arg Arg 65 70 75 80

Val Pro Pro Ser Leu Leu Lys Arg Lys Glu Arg Cys Pro Leu Lys Lys 85 90 95

Met Val Met Ser Gly Asn Pro Arg His Ile Thr Leu Ile His Lys Trp
100 105 110

Asp Leu Gly

115

<210> 646

<211> 153 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (127) <223> Xaa equals any of the naturally occurring L-amino acids <400> 646 Tyr Met Pro Asn Gly Ser Leu Asn Glu Leu Leu His Arg Lys Thr Glu Tyr Pro Asp Val Ala Trp Pro Leu Arg Phe Arg Ile Leu His Glu Ile 20 25 Ala Leu Gly Val Asn Tyr Leu His Asn Met Thr Pro Pro Leu Leu His 40 His Asp Leu Lys Thr Gln Asn Ile Leu Leu Asp Asn Glu Phe His Val 50 Lys Ile Ala Asp Phe Gly Leu Ser Lys Trp Arg Met Met Ser Leu Ser Gln Ser Arg Ser Ser Lys Ser Ala Pro Glu Gly Gly Thr Ile Ile Tyr 90 Met Pro Pro Glu Asn Tyr Glu Pro Gly Gln Lys Ser Arg Ala Ser Ile 105 Lys His Asp Ile Tyr Ser Tyr Ala Val Ile Thr Trp Glu Val Xaa Ser 120 Arg Lys Gln Pro Phe Glu Asp Val Thr Asn Pro Leu Gln Ile Met Tyr 135 Ser Val Ser Gln Gly His Trp Thr Gly 145 150

<210> 647 <211> 220 <212> PRT <213> Homo sapiens

Thr Leu Thr Ser Leu Pro Ser Ser Cys Pro Glu Pro	Arg Pro	Ser Met
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- Asp Ala Val Asp Ala Thr Met Glu Lys Leu Arg Ala Gln Cys Leu Ser 35 40 45
- Arg Gly Ala Ser Gly Ile Gln Gly Leu Ala Arg Phe Phe Arg Gln Leu 50 55 60 .
- Asp Arg Asp Gly Ser Arg Ser Leu Asp Ala Asp Glu Phe Arg Gln Gly
  65 70 75 80
- Leu Ala Lys Leu Gly Leu Val Leu Asp Gln Ala Glu Ala Glu Gly Val 85 90 95
- Cys Arg Lys Trp Asp Arg Asn Gly Ser Gly Thr Leu Asp Leu Glu Glu 100 105 110
- Phe Leu Arg Ala Leu Arg Pro Pro Met Ser Gln Ala Arg Glu Ala Val
- Ile Ala Ala Ala Phe Ala Lys Leu Asp Arg Ser Gly Asp Gly Val Val 130 135 140
- Thr Val Asp Asp Leu Arg Gly Val Tyr Ser Gly Arg Ala His Pro Lys
  145 150 155 160
- Val Arg Ser Gly Glu Trp Thr Glu Asp Glu Val Leu Arg Arg Phe Leu 165 170 175
- Asp Asn Phe Asp Ser Ser Glu Lys Asp Gly Gln Val Thr Leu Ala Glu 180 185 185
- Phe Gln Asp Tyr Tyr Ser Gly Val Ser Ala Ser Met Asn Thr Asp Glu
  195 200 205
- Glu Phe Val Ala Met Met Thr Ser Ala Trp Gln Leu 210 215 220

<210> 648

<211> 118

<212> PRT

<213> Homo sapiens

<400> 648

Asp Asn Arg Thr Leu Thr Lys Gly Pro Asp Thr Val Gly Thr Met Gly  $1 \ 5 \ 10 \ 15$ 

Gln Cys Arg Ser Ala Asn Ala Glu Asp Ala Gln Glu Phe Ser Asp Val

20 25 30 Glu Arg Ala Ile Glu Thr Leu Ile Lys Asn Phe His Gln Tyr Ser Val 40 Glu Gly Gly Lys Glu Thr Leu Thr Pro Ser Glu Leu Arg Asp Leu Val 55 Thr Gln Gln Leu Pro His Leu Met Pro Ser Asn Cys Gly Leu Glu Glu 70 Lys Ile Ala Asn Leu Gly Ser Cys Asn Asp Ser Lys Leu Glu Phe Arg 85 Ser Phe Trp Glu Leu Ile Gly Glu Ala Ala Lys Ser Val Lys Leu Glu 105 Arg Pro Val Arg Gly His ` 115 <210> 649 <211> 309 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (77) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (160) <223> Xaa equals any of the naturally occurring L-amino acids Asp His His Gln Gly Ala Glu Ser Val Pro Gly Ile Gly Val Ser Pro Thr Ser Ser Ser Cys Pro Pro Thr Ser Cys Thr Gln Pro Val Thr Thr Trp Ser Pro Gly Leu Arg Val Glu Ser Leu Asp Gly Ala Lys Thr 45 Gly Lys Gly Ala Leu Thr Gly Ala Pro Gly Ser Phe Gly Ser Ser Glu

Phe Leu Thr Gly Leu Arg Asn Thr Ser Glu Ala Arg Xaa Thr Arg Gly

WO 00/55173 PCT/US00/05881

610

65					70					75					80
Pro	Ile	Met	Gln	Glu 85	Pro	Arg	Arg	Val	Thr 90	Pro	Суѕ	Leu	Gly	Lys 95	Arg
Gly	Val	Lys	Thr 100	Pro	Gln	Leu	Gln	Pro 105	Gly	Ser	Ala	Phe	Leu 110	Pro	Arg
Val	Arg	Arg 115	Gln	Ser	Phe	Pro	Ala 120	Arg	Ser	Asp	Ser	Tyr 125	Thr	Thr	Val
Arg	Asp 130	Phe	Leu	Ala	Val	Pro 135	Arg	Thr	Ile	Ser	Ser 140	Ala	Ser	Ala	Thr
Leu 145	Ile	Met	Ala	Val	Ala 150	Val	Ser	His	Phe	Arg 155	Pro	Gly	Pro	Glu	Xaa 160
Trp	Asp	Thr	Ala	Ser 165	Met	Ala	Ala	Ser	Lys 170	Val	Lys	Gln	Asp	Met 175	Pro
Pro	Pro	Gly	Gly 180	Tyr	Gly	Pro	Ile	Asp 185	Tyr	Lys	Arg	Asn	Leu 190	Pro	Arg
Arg	Gly	Leu 195	Ser	Gly	Tyr	Ser	Met 200	Leu	Ala	Ile	Gly	11e 205	Gly	Thr	Leu
Ile	Tyr 210	Gly	His	Trp	Ser	11e 215	Met	Lys	Trp	Asn	Arg 220	Glu	Arg	Arg	Arg
Leu 225	Gln	Ile	Glu	Asp	Phe 230	Glu	Ala	Arg	Ile	Ala 235	Leu	Leu	Pro	Leu	Leu 240
Gln	Ala	Glu	Thr	Asp 245	Arg	Arg	Thr	Leu	Gln 250	Met	Leu	Arg	Glu	Asn 255	Leu
Glu	Glu	Glu	Ala 260	Ile	Ile	Met	Lys	Asp 265	Val	Pro	Asp	Trp	Lys 270	Val	Gly
Glu	Ser	Val 275	Phe	His	Thr	Thr	Arg 280	Trp	Val	Pro	Pro	Leu 285	Ile	Gly	Glu
Leu	Туг 290	Gly	Leu	Arg	Thr	Thr 295	Glu	Glu	Ala	Leu	His 300	Ala	Ser	His	Gly
Phe 305	Met	Trp	Tyr	Thr											

<210> 650

<211> 286

	2> P 3> H	RT omo	sapi	ens											
<40	0> 6	50													
Ile 1		Thr	Leu	Ile 5	Thr	Ala	Phe	Val	Leu 10	Ala	Thr	Ser	Gln	Ala 15	Gln
Ala	Gly	Trp	Leu 20		His	Asp	Туг	Gly 25	His	Leu	Ser	Val	Tyr 30	Arg	Lys
Pro	Lys	Trp 35	Asn	His	Leu	Val	His 40	Lys	Phe	Val	Ile	Gly 45	His	Leu	Lys
Gly	Ala 50	Ser	Ala	Asn	Trp	Trp 55	Asn	His	Arg	His	Phe 60	Gln	His	His	Ala
Lys 65	Pro	Asn	Ile	Phe	His 70	Lys	Asp	Pro	Asp	Val 75	Asn	Met	Leu	His	Val 80
Phe	Val	Leu	Gly	Glu 85	Trp	Gln	Pro	Ile	Glu 90	Tyr	Gly	Lys	Lys	Lys 95	Leu
Lys	Tyr	Leu	Pro 100	Tyr	Asn	His	Gln	His 105	Glu	Туг	Phe	Phe	Leu 110	Ile	Gly
Pro	Pro	Leu 115	Leu	Ile	Pro	Met	Туг 120	Phe	Gln	Tyr	Gln	Ile 125	Ile	Met	Thr
Met	Ile 130	Val	His	Lys	Asn	Trp 135	Val	Asp	Leu	Ala	Trp 140	Ala	Val	Ser	Tyr
Tyr 145	Ile	Arg	Phe	Phe	Ile 150	Thr	Tyr	Ile	Pro	Phe 155	Туг	Gly	Ile	Leu	Gly 160
Ala	Leu	Leu	Phe	Leu 165	Asn	Phe	Ile	Arg	Phe 170	Leu	Glu	Ser	His	Trp 175	Phe
Val	Trp	Val	Thr 180	Gln	Met	Asn	His	Ile 185	Val	Met	Glu	Ile	Asp 190	Gln	Glu
Ala	Tyr	Arg 195	Asp	Trp	Phe	Ser	Ser 200	Gln	Leu	Thr	Ala	Thr 205	Cys	Asn	Val
Glu	Gln 210	Ser	Phe	Phe	Asn	Asp 215	Trp	Phe	Ser	GŢÀ	His 220	Leu	Asn	Phe	Gln
Ile 225	Glu	His	His	Leu	Phe 230	Pro	Thr	Met	Pro	Arg 235	His	Asn	Leu		Lys 240
Ile	Ala	Pro	Leu	Val 245	Lys	Ser	Leu	Cys	Ala 250	Lys	His	Gly	Ile	Glu 255	Tyr

Gln Glu Lys Pro Leu Leu Arg Ala Leu Leu Asp Ile Ile Arg Ser Leu 265 Lys Lys Ser Gly Lys Leu Trp Leu Asp Ala Tyr Leu His Lys 275

280

<210> 651 <211> 184

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (57)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

Glu Arg Gly Pro Ile Pro Val Cys Pro His Lys Ala Ala Ser Ser Val 10

Ile Ser Leu Leu Arg Ala Glu Leu Arg Leu Tyr Thr Asp Pro His Lys 25

Tyr His Xaa Phe Cys Leu Arg Lys Asp Lys Ala His Val Cys Phe Cys 40

Phe Arg Phe Leu Phe Ser Phe Phe Xaa Glu Ala Leu Trp Arg Ser Met

Phe Leu Leu Ser Phe Leu Xaa Lys Pro Ser Phe Trp Ala Thr Gly Leu 65 70 75

Ile Leu Ser Thr Ser Ser Phe Pro Pro Phe Ser Ile Val Ser Leu Pro

95

613

90

Pro Ser His Pro Thr Arg Ala Pro Leu Xaa Leu Ser Phe Pro Ser Ser 100 105 Pro Ala Val Ser Phe Leu Arg Ser Gly Thr Lys Leu Ile Phe Arg Arg 120 Arg Pro Arg Gln Lys Glu Ala Gly Leu Ser Gln Ser His Asp Asp Leu 135 Ser Asn Ala Thr Ala Thr Pro Ser Val Arg Lys Lys Ala Gly Ser Phe 150 Ser Arg Arg Leu Ile Lys Arg Phe Ser Phe Lys Ser Lys Pro Lys Ala 170 175 Asn Gly Asn Pro Ser Pro Gln Leu 180 <210> 652 <211> 641 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (438) <223> Xaa equals any of the naturally occurring L-amino acids <400> 652 Gln Gly Ser Glu Pro Ser Ser Glu Asn Ala Asn Asp Thr Ile Ile Leu 1 5 Arg Asn Leu Asn Pro His Ser Thr Met Asp Ser Ile Leu Gly Ala Leu Ala Pro Tyr Ala Val Leu Ser Ser Ser Asn Val Arg Val Ile Lys Asp 35 40 Lys Gln Thr Gln Leu Asn Arg Gly Phe Ala Phe Ile Gln Leu Ser Thr Ile Glu Ala Ala Gln Leu Leu Gln Ile Leu Gln Ala Leu His Pro Pro 70

Leu Thr Ile Asp Gly Lys Thr Ile Asn Val Glu Phe Ala Lys Gly Ser

Lys	Arg	Asp	Met 100	Ala	Ser	Asn	Glu	Gly 105	Ser	Arg	Ile	Ser	Ala 110	Ala	Ser
Val	Ala	Ser 115	Thr	Ala	Ile	Ala	Ala 120	Ala	Gln	Trp	Ala	Ile 125	Ser	Gln	Ala
Ser	Gln 130	Gly	Gly	Glu	Gly	Thr 135	Trp	Ala	Thr	Ser	Glu 140	Glu	Pro	Pro	Val
Asp 145	Tyr	Ser	Tyr	Tyr	Gln 150	Gln	Asp	Glu	Gly	Tyr 155	Gly	Asn	Ser	Gln	Gly 160
Thr	Glu	Ser	Ser	Leu 165	Tyr	Ala	His	Gly	туr 170	Leu	Lys	Gly	Thr	Lys 175	Gly
Pro	Gly	Ile	Thr 180	Gly	Thr	Lys	Gly	Asp 185	Pro	Thr	Gly	Ala	Gly 190	Pro	Glu
Ala	Ser	Leu 195	Glu	Pro	Gly	Ala	Asp 200	Ser	Val	Ser	Met	Gln 205	Ala	Phe	Ser
Arg	Ala 210	Gln	Pro	Gly	Ala	Ala 215	Pro	Gly	Ile	Tyr	Gln 220	Gln	Ser	Ala	Glu
Ala 225	Ser	Ser	Ser	Gln	Gly 230	Thr	Ala	Ala	Asn	Ser 235	Gln	Ser	туг	Thr	Ile 240
Met	Ser	Pro	Ala	Val 245	Leu	Lys	Ser	Glu	Leu 250	Gln	Ser	Pro	Thr	His 255	Pro
Ser	Ser	Ala	Leu 260	Pro	Pro	Ala	Thr	Ser 265	Pro	Thr	Ala	Gln	Glu 270	Ser	Tyr
Ser	Gln	Tyr 275	Pro	Val	Pro	Asp	Val 280	Ser	Thr	Tyr	Gln	Туг 285	Asp	Glu	Thr
Ser	Gly 290	Tyr	Tyr	Tyr	Asp	Pro 295	Gln	Thr	Gly	Leu	Tyr 300	Tyr	Asp	Pro	Asn
Ser 305	Gln	Tyr	Tyr	Tyr	Asn 310	Ala	Gln	Ser	Gln	Gln 315	Tyr	Leu	Tyr	Trp	Asp 320
Gly	Glu	Arg	Arg	Thr 325	Tyr	Val	Pro	Ala	Leu 330	Glu	Gln	Ser	Ala	Asp 335	Gly
His	Lys	Glu	Thr 340	Gly	Ala	Pro	Ser	Lys 345	Glu	Gly	Lys	Glu	Lys 350	Lys	Glu
Lys	His	Lys 355	Thr	Lys	Thr	Ala	Gln 360	Gln	Ile	Ala	Lys	Asp 365	Met	Glu	Arg

Tr	370	Arç	Ser	Leu	Asn	Lys 375		Lys	Glu	Asn	Phe 380		Asn	Ser	Phe
Gln 385	Pro	Ile	Ser	Ser	Leu 390	Arg	Asp	Asp	Glu	Arg 395		Glu	Ser	Ala	Thr 400
Ala	Asp	Ala	Gly	Tyr 405		Ile	Leu	Glu	Lys 410		Gly	Ala	Leu	Ala 415	Glu
Arg	Gln	His	Thr 420		Met	Asp	Leu	Pro 425	Lys	Leu	Ala	Ser	Asp 430	Asp	Arg
Pro	Ser	Pro 435	Pro	Arg	Xaa	Leu	Val 440	Ala	Ala	Туг	Ser	Gly 445	Glu	Ser	Asp
Ser	Glu 450	Glu	Glu	Gln	Glu	Arg 455	Gly	Gly	Pro	Glu	Arg 460	Glu	Glu	Lys	Leu
Thr 465	Asp	Trp	Gln	Lys	Leu 470	Ala	Cys	Leu	Leu	Cys 475	Arg	Arg	Gln	Phe	Pro 480
Ser	Lys	Glu	Ala	Leu 485	Ile	Arg	His	Gln	Gln 490		Ser	Gly	Leu	His 495	Lys
Gln	Asn	Leu	Glu 500	Ile	His	Arg	Arg	Ala 505	His	Leu	Ser	Glu	Asn 510	Glu	Leu
Glu	Ala	Leu 515	Glu	Lys	Asn	Asp	Met 520	Glu	Gln	Met	Lys	Туг 525	Arg	Asp	Arg
Ala	Ala 530	Glu	Arg	Arg	Glu	Lys 535	Tyr	Gly	Ile	Pro	Glu 540	Pro	Pro	Glu	Pro
Lys 545	Arg	Arg	Lys	Tyr	Gly 550	Gly	Ile	Ser	Thr	Ala 555	Ser	Val	Asp	Phe	Glu 560
Gln	Pro	Thr	Arg	Asp 565	Gly	Leu	Gly	Ser	Asp 570	Asn	Ile	Gly	Ser	Arg 575	Met
Leu	Gln	Ala	Met 580	Gly	Trp	Lys	Glu	Gly 585	Ser	Gly	Leu	Gly	Arg 590	Lys	Lys
Gln	Gly	Ile 595	Val	Thr	Pro		Glu 600	Ala	Gln	Thr		Val 605	Arg	Gly	Ser
Gly	Leu 610	Gly	Ala	Arg	Gly	Ser 615	Ser	Tyr	Gly		Thr 620	Ser	Thr	Glu	Ser
ryr 525	Lys ·	Glu	Thr	Leu	His 1 630	Lys	Thr	Met		Thr 635	Arg	Phe	Asn		Ala 640

Gln

<210> 653 <211> 516 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (247) <223> Xaa equals any of the naturally occurring L-amino acids <400> 653 Xaa Thr Arg Pro Gly Arg Gln Thr Arg Leu Cys Arg Pro Ala Ile Ser Leu Leu Trp Leu Val Thr Pro Gly Val Pro Ala Phe Ser Gly Trp Gly Arg Arg His Arg Gly Arg Thr Gly Arg Arg Ala Met Ala Ser Cys Val 40 Gly Ser Arg Thr Leu Ser Lys Asp Asp Val Asn Tyr Lys Met His Phe Arg Met Ile Asn Glu Gln Gln Val Glu Asp Ile Thr Ile Asp Phe Phe Tyr Arg Pro His Thr Ile Thr Leu Leu Ser Phe Thr Ile Val Ser Leu 85 90 Met Tyr Phe Ala Phe Thr Arg Asp Asp Ser Val Pro Glu Asp Asn Ile 105 Trp Arg Gly Ile Leu Ser Val Ile Phe Phe Leu Ile Ile Ser Val 115 120 Leu Ala Phe Pro Asn Gly Pro Phe Thr Arg Pro His Pro Ala Leu Trp 135 Arg Met Val Phe Gly Leu Ser Val Leu Tyr Phe Leu Phe Leu Val Phe 150 155

Leu	Leu	Phe	Leu	Asn 165		Glu	Gln	Val	Lys 170		Leu	Met	Туг	Trp 175	Leu
Asp	Pro	Asn	Leu 180	Arg	Tyr	Ala	Thr	Arg 185	Glu	Ala	Asp	Val	Met 190	Glu	туг
Ala	Val	Asn 195		His	Val	Ile	Thr 200	Trp	Glu	Arg	Ile	11e 205	Ser	His	Phe
	210					215					220			Ala	
225					230					235				Trp	240
				245					250					Glu 255	_
			260					265				,	270	Gly	_
		275					280			•		285		Thr	
	290					295					300			Ile	_
305					310					315				Arg	320
				325					330					Leu 335	
			340					345					350	Lys	
		35 <b>5</b>					360					365		Île	
	370					375					380			Ala	
385					390					395				Val	400
				405					410					Gly 415	
Asp	Leu	Phe	Ser 420	Lys	Thr	Gln	Ile	Leu 425	Tyr	Val	Val	Leu	Trp 430	Leu	Leu

Cys Val Ala Phe Thr Thr Phe Leu Cys Leu Tyr Gly Met Ile Trp Tyr 435 440 445

Ala Glu His Tyr Gly His Arg Glu Lys Thr Tyr Ser Glu Cys Glu Asp 450 455 460

Gly Thr Tyr Ser Pro Glu Ile Ser Trp His His Arg Lys Gly Thr Lys 465 470 480

Gly Ser Glu Asp Ser Pro Pro Lys His Ala Gly Asn Asn Glu Ser His
485 490 495

Ser Ser Arg Arg Arg Asn Arg His Ser Lys Ser Lys Val Thr Asn Gly
500 505 510

Val Gly Lys Lys 515

<210> 654

<211> 663

<212> PRT

<213> Homo sapiens

<400> 654

Leu Glu Cys Arg Glu Ala His Ile Arg Asp Val Pro Val Val Arg Leu

1 5 10 15

Pro Ala Asp Ser Pro Ile Pro Glu Arg Gly Asp Leu Ser Cys Arg Met
20 25 30

His Thr Cys Phe Asp Val Tyr Arg Cys Gly Phe Asn Pro Lys Asn Lys 35 40 45

Ile Lys Val Tyr Ile Tyr Ala Leu Lys Lys Tyr Val Asp Asp Phe Gly 50 55 60

Val Ser Val Ser Asn Thr Ile Ser Arg Glu Tyr Asn Glu Leu Leu Met 65 70 75 80

Ala Ile Ser Asp Ser Asp Tyr Tyr Thr Asp Asp Ile Asn Arg Ala Cys 85 90 95

Leu Phe Val Pro Ser Ile Asp Val Leu Asn Gln Asn Thr Leu Arg Ile 100 105 110

Lys Glu Thr Ala Gln Ala Met Ala Gln Leu Ser Arg Trp Asp Arg Gly 115 120 125

Thr Asn His Leu Leu Phe Asn Met Leu Pro Gly Gly Pro Pro Asp Tyr

	130	<b>,</b>				135	,				140				
Asn 145		Ala	Leu	Asp	Val 150		Arg	Asp	Arg	Ala 155		Leu	Ala	Gly	Gly 160
Gly	Phe	Ser	Thr	Trp	Thr	Tyr	Arg	Gln	Gly 170		Asp	Val	Ser	Ile 175	
Val	Tyr	Ser	Pro 180		Ser	Ala	Glu	Val 185		Leu	Pro	Glu	Lys 190	_	Pro
Gly	Pro	Arg 195	Gln	туг	Phe	Leu	Leu 200	Ser	Ser	Gln	Val	Gly 205	Leu	His	Pro
Glu	Туг 210		Glu	Asp	Leu	Glu 215		Leu	Gln	Val	Lys 220	His	Gly	Glu	Ser
Val 225	Leu	Val	Leu	Asp	Lys 230	Cys	Thr	Asn	Leu	Ser 235	Glu	Gly	Val	Leu	Ser 240
Val	Arg	Lys	Arg	Cys 245	His	Lys	His	Gln	Val 250	Phe	Asp	Tyr	Pro	Gln 255	Val
Leu	Gln	Glu	Ala 260	Thr	Phe	Суѕ	Val	Val 265	Leu	Arg	Gly	Ala	Arg 270	Leu	Gly
Gln	Ala	Val 275	Leu	Ser	Asp	Val	Leu 280	Gln	Ala	Gly	Cys	Val 285	Pro	Val	Val
Ile	Ala 290	Asp	Ser	Tyr	Ile	Leu 295	Pro	Phe	Ser	Glu	Val 300	Leu	Asp	Trp	Lys
Arg 305	Ala	Ser	Val	Val	Val 310	Pro	Glu	Glu	Lys	Met 315	Ser	Asp	Val	туг	Ser 320
Ile	Leu	Gln	Ser	Ile 325	Pro	Gln	Arg	Gln	Ile 330	Glu	Glu	Met	Gln	Arg 335	Gln
Ala	Arg	Trp	Phe 340	Trp	Glu	Ala	Туr	Phe 345	Gln	Ser	Ile	Lys	Ala 350	Ile	Ala
Leu	Ala	Thr 355	Leu	Gln	Ile	Ile	Asn 360	Asp	Arg	Ile	Tyr	Pro 365	Tyr	Ala	Ala
[le	Ser 370	Tyr	Glu	Glu	Trp	Asn 375	Asp	Pro	Pro	Ala	Val 380	Lys	Trp	Gly	Ser
/al 885	Ser	Asn	Pro	Leu	Phe 390	Leu	Pro	Leu	Ile	Pro 395	Pro	Gln	Ser	Gln	Gly 400
he	Thr	Ala	Ile	Val	Leu	Thr	Tyr	Asp	Arg	Val	Glu	Ser	Leu	Phe	Arg

WO 00/55173 PCT/US00/05881

				405					410					415	
Val	Ile	Thr	Glu 420	Val	Ser	Lys	Val	Pro 425	Ser	Leu	Ser	Lys	Leu 430	Leu	Val
Val	тгр	Asn 435	Asn	Gln	Asn	Lys	Asn 440	Pro	Pro	Glu	Asp	Ser 445	Leu	Trp	Pro
Lys	11e 450	Arg	Val	Pro	Leu	Lys 455	Val	Val	Arg	Thr	Ala 460	Glu	Asn	Lys	Leu
Ser 465	Asn	Arg	Phe	Phe	Pro 470	Tyr	Asp	Glu	Ile	Glu 475	Thr	Glu	Ala	Val	Leu 480
Ala	Ile	Asp	Asp	Asp 485	Ile	Ile	Met	Leu	Thr 490	Ser	Asp	Glu	Leu	Gln 495	Phe
Gly	Tyr	Glu	Val 500	Trp	Arg	Glu	Phe	Pro 505	Asp	Arg	Leu	Val	Gly 510	Tyr	Pro
Gly	Arg	Leu 515	His	Leu	Trp	Asp	His 520	Glu	Met	Asn	Lys	Trp 525	Lys	Tyr	Glu
Ser	G1u 530	Trp	Thr	Asn	Glu	Val 535	Ser	Met	Val	Leu	Thr 540	Gly	Ala	Ala	Phe
Tyr 545	His	Lys	Tyr	Phe	Asn 550	Tyr	Leu	Tyr	Thr	<b>Tyr</b> 555	Lys	Met	Pro	Gly	Asp 560
Ile	Lys	Asn	Trp	Val 565	Asp	Ala	His	Met	Asn 570	Cys	Glu	Asp	Ile	Ala 575	Met
Asn	Phe	Leu	Val 580	Ala	Asn	Val	Thr	Gly 585	Lys	Ala	Val	Ile	Lys 590	Val	Thr
Pro	Arg	Lys 595	Lys	Phe	Lys	Cys	Pro 600	Glu	Cys	Thr	Ala	Ile 605	Asp	Gly	Leu
Ser	Leu 610	Asp	Gln	Thr	His	Met 615	Val	Glu	Arg	Ser	Glu 620	Cys	Ile	Asn	Lys
Phe 625	Ala	Ser	Val	Phe	Gly 630	Thr	Met	Pro	Leu	Lys 635	Val	Val	Glu	His	Arg 640
Ala	Asp	Pro	Val	Leu 645	Tyr	Lys	Asp	Asp	Phe 650	Pro	Glu	.Lys	Leu	Lys 655	Ser
Phe	Pro	Asn	Ile 660	Gly	Ser	Leu									

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<210> 655
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 <213> Homo sapiens
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Ala Thr Gln Leu Leu Ser Ser Phe Ser Val Gly Pro Leu Leu Gln Ile
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                                     10
Thr Phe Tyr Glu Asp Lys Asn Phe Gln Gly Arg Arg Tyr Asp Cys Asp
                                 25
                                                     30
Cys Asp Cys Ala Asp Xaa His Thr Tyr Leu Ser Arg Cys Asn Ser Ile
         35
                             40
                                                 45
Lys Val Glu Gly Gly Thr Trp Ala Val Tyr Glu Arg Pro Asn Phe Ala
                         55
Gly Tyr Met Tyr Ile Leu Pro Gln Gly Glu Tyr Pro Glu Tyr Gln Arg
 65
                    70
Trp Met Gly Leu Asn Asp Arg Leu Ser Ser Xaa Arg Ala Val Ser Ser
                 85
Ala
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<210> 656

<211> 167

<212> PRT

<213> Homo sapiens

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Asp Ala Asp Leu Val Ile Trp Asp Pro Asp Ser Val Lys Thr Ile Ser

Ala Lys Thr His Asn Ser Ser Leu Glu Tyr Asn Ile Phe Glu Gly Met

Glu Cys Arg Gly Ser Pro Leu Val Val Ile Ser Gln Gly Lys Ile Val 40

Leu Glu Asp Gly Thr Leu His Val Thr Glu Xaa Ser Gly Arg Tyr Ile

Pro Arg Lys Pro Phe Pro Asp Phe Xaa Tyr Lys Arg Ile Lys Ala Arg 70

Ser Arg Leu Ala Glu Leu Arg Gly Val Pro Arg Gly Leu Tyr Asp Gly

Pro Val Cys Glu Val Ser Val Thr Pro Lys Thr Val Thr Pro Ala Ser 105 100

Ser Ala Lys Thr Ser Pro Ala Lys Gln Gln Ala Pro Pro Val Arg Asn 120

Leu His Gln Ser Gly Phe Ser Leu Ser Gly Ala Gln Ile Asp Asp Asn 135 130

Ile Pro Arg Arg Thr Thr Gln Arg Ile Val Ala Pro Pro Gly Gly Arg 155 150

Ala Asn Ile Thr Ser Leu Gly 165

<210> 657

<211> 176

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<22	1> S	ITE													
	2> (														
<22	3> x	aa e	gual	s an	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	ds
<22	0>														
<22	1> s	ITE													
<22	2> (	26)													
<22	3> X	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<40	0> 6	57													
Xaa 1	Ser	Leu	Asn	Leu 5	Xaa	Lys	Leu	Ala	Leu 10		Arg	Gly	Gly	Gly 15	Arg
Ser	Arg	Thr	Ser 20		Ser	Pro	Gly	Leu 25		Glu	Phe	Gly	Thr	Ser	Ala
Val	Leu	Leu 35	Arg	Leu	Gly	Asp	Glu 40	Leu	Glu	Met	Ile	Arg 45	Pro	Ser	Val
Туr	Arg 50	Asn	Val	Ala	Arg	Gln 55	Leu	His	Ile	Ser	Leu 60	Gln	Ser	Glu	Pro
Val 65	Val	Thr	Asp	Ala	Phe 70	Leu	Ala	Val	Ala	Gly 75	His	Ile	Phe	Ser	Ala 80
Gly	Ile	Thr	Trp	Gly 85	Lys	Val	Val	Ser	Leu 90	Tyr	Ala	Val	Ala	Ala 95	Gly
Leu	Ala	Val	Asp 100	Cys	Val	Arg	Gln	Ala 105	Gln	Pro	Ala	Met	Val 110	His	Ala
Leu	Val	Asp 115	Cys	Leu	Gly	Glu	Phe 120	Val	Arg	Lys	Thr	Leu 125	Ala	Thr	Trp
Leu	Arg 130	Arg	Arg	Gly	Gly	Trp 135	Thr	Asp	Val	Leu	Lys 140	Cys	Val	Val	Ser
Thr 145	Asp	Pro	Gly	Leu	Arg 150	Ser	His	Trp	Leu	Val 155	Ala	Ala	Leu	Cys	Ser 160
Phe	Gly	Arg	Phe	Leu 165	Lys	Ala	Ala	Phe	Phe 170	Val	Leu	Leu	Pro	Glu 175	Arg

<210> 658

<211> 137

<212> PRT

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Gly Met Ala Gly Glu Leu Thr Pro Glu Glu Glu Ala Gln Tyr Lys Lys
Ala Phe Ser Ala Val Asp Thr Asp Gly Asn Gly Thr Ile Asn Ala Gln
        35
                             40
                                                 45
Glu Leu Gly Ala Ala Leu Lys Ala Thr Gly Lys Asn Leu Ser Glu Ala
Gln Leu Arg Lys Leu Ile Ser Glu Val Asp Xaa Asp Gly Asp Gly Glu
65
                    70
Ile Ser Phe Gln Glu Phe Leu Thr Ala Ala Xaa Lys Ala Arg Ala Gly
                 85
                                     90
```

```
Leu Glu Asp Leu Xaa Val Ala Phe Arg Ala Phe Asp Gln Asp Gly Asp
             100
                                 105
 Gly His Ile Thr Val Asp Glu Leu Arg Arg Ala Xaa Ala Gly Leu Gly
         115
                             120
 Xaa Leu Xaa Glu Ile Asp His Phe Gly
    130
 <210> 659
 <211> 34
 <212> PRT
 <213> Homo sapiens
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Pro Xaa Ser Arg Gln Asp Val Met Asp Ile Val Phe Ile Glu Gln Leu
                                      10
Ser Val Ile Thr Thr Ile Gly Val Tyr Asp Trp Xaa Gln Xaa Ser Asn
             20
                                 25
Arg Ser
<210> 660
<211> 56
<212> PRT
<213> Homo sapiens
<400> 660
Asn Pro Ile Ser Pro Lys Asn Tyr Lys Lys Ile Ser Gln Ala Gln Ser
                                    10
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WO 00/55173 PCT/US00/05881

626

Gln Leu Pro Val Ile Pro Ala Thr Gln Glu Ala Glu Ser Gly Glu Ser 20 25 30

Leu Gly Pro Gly Ala Ala Glu Val Asn Ser Glu Pro Arg Leu His His 35 40 45

Arg Thr Pro Ala Trp Ile Thr Lys 50 55

<210> 661

<211> 41

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

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<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 661

Tyr Ile Gly Phe Val Île Leu Val Phe Phe Ala Ser Ser Tyr Val Lys
1 5 10 15

Glu Ile Asp Asn Lys Ile Leu Asn Asn Lys Lys Lys Xaa Lys Xaa Ser 20 25 30

Ser Lys Gly Xaa Val Ala Xaa Ala Ile 35 40

<210> 662

<211> 524

<2	12> 1	PRT													
<2	13> 1	Homo	sap	iens											
			•												
<22	20>														
	21> :	e v me													
		(124)	,												
<22	23> )	Kaa e	equa]	ls ar	ly of	the	e nat	ural	ly c	ccui	ring	L-a	mino	aci	ds
<22	20>														
<22	21> 5	SITE													
<22	2> (	(191)	)												
<22	3> }	(aa e	equa1	.s ar	y of	the	nat	ural	lv c	ccur	rina	L-a	mino	aci	de
			•		•									acı	us
<40	0> 6	62													
			Trr	Arc		. A				- C1-			Ser	_	_
1				, Alg		ALG	Hra	Asp			GIY	GIN	Ser		
•	•			3	•				10					15	
۵۱.		_													
GIn	Ala	Leu			Ser	Thr	Ala	Pro	Gln	His	Pro	Gly	Leu	His	Arg
			20	!	•			25					30		
Trp	Thr	Gly	Asp	Arg	Lys	Met	Pro	Pro	Arg	Arq	Asp	Ara	Gly	Cvs	Asp
		35					40		_	•	•	45		-1-	
Pro	Val	Gly	Asn	Ile	Pro	Gln	Glv	Glu	Ser	Glv	Gly	Tro	Trp	D=0	C1
	50					55		OLG	Del	GLY		тър	irb	PIO	GIU
						,,					60				
C1	21-	<b>~1</b>		<b>.</b> .	_									•	
GIY	Ald	GIA	Asp	Leu		GLY	Ala	Thr	Pro		Arg	Glu	Ser	Pro	Gln
65					70					75					80
Leu	Pro	Gly	Gln	Arg	Leu	Gln	Pro	His	Pro	Gln	Gln	Cys	Leu	His	Gly
				85					90					95	•
Arg	Arg	Val	Arg	Gly	Pro	Ser	Trp	Arg	Val	Glu	Ala	Tro	Gly	Pro	Glv
	_		100	-			•	105					110		GLY
								103					110		
Len	His	Va 1	Dhe	Gly	Dro	c1	C1-	N	m	<b>61</b>			_		
200		115	FIIC	GIY	PIO	GTA		Arg	Trp	GIY	xaa		Pro	Gln	Gly
		113					120					125			
	_														
ITE		Glu	Leu	Glu	Gln	Tyr	Asp	Pro	Pro	Glu	Leu	Ala	Asp	Ser	Ser
	130					135					140				
		•													
Gly	Arg	Val	Val	Arg	Glu	Lys	Trp	Ser	Ala	Asp	Met	Trn	Arg	T.eu	G1 v
145				_	150	•	•			155			9	Dea	
										133					160
Cuc	Tan	T10	<b></b>	c1	11-1	D			_	_					
Cys	Tea	116	пр	GIU	vaı	Pne	Asn	GLY		Leu	Pro	Arg	Ala	Ala	Ala
				165					170					175	
Leu	Arg	Asn	Pro	Gly	Lys	Ile	Pro	Lys	Thr	Leu	Val	Pro	His	Xaa	Cys
			180					185					190		
													-		
Lys	Leu	Val	Gly	Ala	Asn	Pro	Lys	Val	Ara	Pro	Asn	Pro	Ala	Ara	Dho

		195					200					205			
Leu	Gln 210	Asn	Cys	Arg	Ala	Pro 215	Gly	Gly	Phe	Met	Ser 220	Asn	Arg	Phe	Val
Glu 225	Thr	Asn	Leu	Phe	Leu 230	Glu	Glu	Ile	Gln	Ile 235	Lys	Glu	Pro	Ala	Glu 240
Lys	Gln	Lys	Phe	Phe 245	Gln	Glu	Leu	Ser	Lys 250	Ser	Leu	Asp	Ala	Phe 255	Pro
G1u	Asp	Phe	Cys 260	Arg	His	Lys	Val	Leu 265	Pro	Gln	Leu	Leu	Thr 270	Ala	Phe
Glu	Phe	Gly 275	Asn	Ala	Gly	Ala	Val 280	Val	Leu	Thr	Pro	Leu 285	Phe	Lys	Val
Gly	Lys 290	Phe	Leu	Ser	Ala	Glu 295	Glu	Tyr	Gln	Gln	Lys 300	Ile	Ile	Pro	Val
Val 305	Val	Lys	Met	Phe	Ser 310	Ser	Thr	Asp	Arg	Ala 315	Met	Arg	Ile	Arg	Leu 320
Leu	Gln	Gln	Met	G1u 325	Gln	Phe	Ile	Gln	туr 330	Leu	Asp	Glu	Pro	Thr 335	Val
Asn	Thr	Gln	11e 340	Phe	Pro	His	Val	Val 345	His	Gly	Phe	Leu	Asp 350	Thr	Asn
Pro	Ala	Ile 355	Arg	Glu	Gln	Thr	Val 360	Lys	Ser	Met	Leu	Leu 365	Leu	Ala	Pro
Lys	Leu 370	Asn	Glu	Ala	Asn	Leu 375	Asn	Val	Glu	Leu	Met 380	Lys	His	Phe	Ala
Arg 385	Leu	Gln	Ala	Lys	Asp 390	Glu	Gln	Gly	Pro	Ile 395	Arg	Cys	Asn	Thr	Thr 400
Val	Cys	Leu	Gly	Lys 405	Ile	Gly	Ser	Tyr	Leu 410	Ser	Ala	Ser	Thr	Arg 415	His
Arg	Val	Leu	Thr 420	Ser	Ala	Phe	Ser	Arg 425	Ala	Thr	Arg	Asp	Pro 430	Phe	Ala
Pro	Ser	Arg 435	Val	Ala	Gly	Val	Leu 440	Gly	Phe	Ala	Ala	Thr 445	His	Asn	Leu
Tyr	Ser 450	Met	Asn	Asp	Cys	Ala 455	Gln	Lys	Ile	Leu	Pro 460	Val	Leu	Cys	Gly
Leu	Thr	Val	Asp	Pro	Glu	Lys	Ser	Val	Arg	Asp	Gln	Ala	Phe	Lys	Ala

465 470 475 Phe Gly Ala Ser Cys Pro Asn Trp Ser Leu Cys Arg Arg Thr Arg Pro 485 490 Ser Trp Arg Lys Trp Arg Arg Met Ser Met Gln Pro Pro Ala Leu Ala 500 505 Trp Glu Glu Pro Gln Leu Ala Gly Gln Ala. Gly Pro 520 <210> 663 <211> 272 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (29) <223> Xaa equals any of the naturally occurring L-amino acids <400> 663 Pro Thr Leu Asp Ser Ala Arg Ser Leu Ser Met Arg Ala Pro Ser Leu Thr Pro Ser Ala Ala Pro Leu Ser Thr Trp Pro Leu Xaa Ile Leu Val 25 30 Arg Ser Gly His Asn Arg Ala Val Asp Trp Trp Ser Leu Gly Ala Leu Met Tyr Asp Met Leu Thr Gly Ser Pro Pro Phe Thr Ala Glu Asn Arg 55 60 Lys Lys Thr Met Asp Lys Ile Ile Arg Gly Lys Leu Ala Leu Pro Pro 70 Tyr Leu Thr Pro Asp Ala Arg Asp Leu Val Lys Lys Phe Leu Lys Arg 85 90 Asn Pro Ser Gln Arg Ile Gly Gly Pro Gly Asp Ala Ala Asp Val Gln Arg His Pro Phe Phe Arg His Met Asn Trp Asp Asp Leu Leu Ala 120 Trp Arg Val Asp Pro Pro Phe Arg Pro Cys Leu Gln Ser Glu Glu Asp 130 135

Val Ser Gln Phe Asp Thr Arg Phe Thr Arg Gln Thr Pro Val Asp Ser 155 160 150 Pro Asp Asp Thr Ala Leu Ser Glu Ser Ala Asn Gln Ala Phe Leu Gly Phe Thr Tyr Val Ala Pro Ser Val Leu Asp Ser Ile Lys Glu Gly Phe 185 Ser Phe Gln Pro Lys Leu Arg Ser Pro Arg Arg Leu Asn Ser Ser Pro 200 Arg Ala Pro Val Ser Pro Leu Lys Phe Ser Pro Phe Glu Gly Phe Arg 215 Pro Ser Pro Ser Leu Pro Glu Pro Thr Glu Leu Pro Leu Pro Pro Leu 235 230 Leu Pro Pro Pro Pro Pro Ser Thr Thr Ala Pro Leu Pro Ile Arg Pro 250 Pro Ser Gly Thr Lys Lys Ser Lys Arg Gly Arg Gly Arg Pro Gly Arg 260 265

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<210> 664
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<211> 256

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 664

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1 5 10 15

Leu Leu Ser Asp Gln Gly Tyr Arg Val Asp Gly Arg Arg Ala Gly Glu 20 25 30

Leu Arg Lys Ile Gln Ala Arg Met Gly Val Phe Ala Gln Ala Asp Gly 35 40 45

Ser Ala Tyr Ile Glu Gln Gly Asn Thr Lys Ala Leu Ala Val Val Tyr 50 55 60 63 I

Gly 65	Pro	His	Glu	Ile	Arg 70	Gly	Ser	Arg	Ala	Arg 75	Ala	Leu	Pro	Asp	Arq 80
Ala	Leu	Val	Asn	Суs 85	Gln	Tyr	Ser	Ser	Ala 90	Thr	Phe	Ser	Thr	Gly 95	Glu
Arg	Lys	Xaa	Arg 100	Pro	His	Gly	Asp	Arg 105	Lys	Ser	Cys	Glu	Met 110	Gly	Leu
Gln	Leu	Arg 115	Gln	Thr	Phe	Glu	Ala 120	Ala	Ile	Leu	Thr	G1n 125	Leu	His	Pro
Arg	Ser 130	Gln	Ile	Asp	Ile	Tyr 135	Val	Gln	Val	Leu	Gln 140	Ala	Asp	Gly	Gly
Thr 145	Tyr	Ala	Ala	Cys	Val 150	Asn	Ala	Ala	Thr	Leu 155	Ala	Val	Leu	Asp	Ala 160
Gly	Ile	Pro	Met	Arg 165	Asp	Phe	Val	Cys	Ala 170		Ser	Ala	Gly	Phe 175	Val
Asp	Gly	Thr	Ala 180	Leu	Ala	Asp	Leu	Ser 185	His	Val	Glu	Glu	Ala 190	Ala	Gly
Gly	Pro	Gln 195	Leu	Ala	Leu	Ala	Leu 200	Leu	Pro	Ala	Ser	Gly 205	Gln	Ile	Ala
Leu	Leu 210	Glu	Met	Asp	Ala	Arg 215	Leu	His	Glu	Asp	His 220	Leu	Glu	Arg	Val
Leu 225	Glu	Ala	Ala	Ala	Gln 230	Ala	Ala	Arg	Asp	Val 235	His	Thr	Leu	Leu	Asp 240
Arg	Val	Val	Arg	Gln 245	His	Val	Arg	Glu	Ala 250	Ser	Ile	Leu	Leu	Gly	Asp

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<210> 665 .
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<220>

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<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;221> SITE

<sup>&</sup>lt;222> (9)

<sup>&</sup>lt;223> Xaa equals any of the naturally occurring L-amino acids

<220	>														
<221	> S1	TE													
	!> (1														
<223	S X &	a eq	ıua l s	any	of	the	natu	rall	y oc	curr	ing	L-an	nino	acid	s
	> 66														
Pro 1	Arg	Gly	Asp	Lys 5	Ala	Arg	Thr	Xaa	Pro 10	Pro	Ala	Ala	Ser	Ala 15	Arg
Pro	Ser	Arg	Ser 20	Lys	Arg	Gly	Gly	Glu 25	Glu	Arg	Val	Leu	Glu 30	Lys	Glu
Glu	Glu	Glu 35	Asp	Asp	Asp	Glu	Asp 40	Glu	Asp	Glu	Glu	Asp 45	Asp	Val	Ser
Glu	Gly 50	Ser	Glu	Val	Pro	Glu 55	Ser	Asp	Arg	Pro	Ala 60	Gly	Ala	Gln	His
His 65	Gln	Leu	Asn	Gly	Glu 70	Arg	Gly	Pro	Gln	Ser 75	Ala	Lys	Glu	Arg	Val 80
Lys	Glu	Trp	Thr	Pro 85	Cys	Gly	Pro	His	Gln 90	Gly	Gln	Asp	Glu	Gly 95	Arg
Gly	Pro	Ala	Pro 100	Gly	Ser	Gly	Thr	Arg 105	Gln	Val	Phe	Ser	Met 110	Ala	Ala
Met	Asn	Lys 115	Glu	Gly	Gly	Thr	Ala 120	Ser	Xaa	Ala	Thr	Gly 125	Pro	Asp	Ser
Pro	Ser 130	Pro	Val	Pro	Leu	Pro 135	Pro	Gly	Lys	Pro	Ala 140	Leu	Pro	Gly	Ala
Asp 145	Gly	Thr	Pro	Phe	Gly 150	Cys	Pro	Pro	Gly	Arg 155	Lys	Glu	Lys	Pro	Ser 160
Asp	Pro	Val	Glu	Trp 165	Thr	Val	Met	Asp	Val 170	Val	Glu	Тyr	Phe	Thr 175	Glu
Ala	Gly	Phe	Pro 180		Gln	Ala	Thr	Val 185	Phe	Gln	Glu	Gln	Glu 190	Ile	Asp
Gly	Lys	Ser 195	Leu	Leu	Leu	Met	Gln 200		Thr	Asp	Val	Leu 205		Gly	Leu
Ser	11e 210	Arg	Leu	Gly	Pro	Ala 215		Lys	Ile	Tyr	G1u 220		His	Ile	Lys
Val 225	Leu	Gln	Gln	Gly	His 230		Glu	Asp	Asp	Asp 235		Asp	Gly	Phe	Leu 240

Gly

<210> 666

<211> 131

<212> PRT

<213> Homo sapiens

<400> 666

Val Thr Gly Gly Gly Ala Val Leu Gly Ala Glu Ser His Ala Ser

1 5 10 15

Lys Asp Val Ala Ile Asp Met Met Asp Ser Arg Thr Ser Gln Gln Leu 20 25 30

Gln Leu Ile Asp Glu Gln Asp Ser Tyr Ile Gln Ser Arg Ala Asp Thr 35 40 45

Met Gln Asn Ile Glu Ser Thr Ile Val Glu Leu Gly Ser Ile Phe Gln 50 55 60

Gln Leu Ala His Met Val Lys Glu Gln Glu Glu Thr Ile Gln Arg Ile
65 70 75 80

Asp Glu Asn Val Leu Gly Ala Gln Leu Asp Val Glu Ala Ala His Ser 85 90 95

Glu Ile Leu Lys Tyr Phe Gln Ser Val Thr Ser Asn Arg Trp Leu Met 100 105 110

Val Lys Ile Phe Leu Ile Leu Ile Val Phe Phe Ile Ile Phe Val Val 115 120 125

Phe Leu Ala 130

<210> 667

<211> 652

<212> PRT

<213> Homo sapiens

<400> 667

Leu Ser Trp Asn Arg Tyr Thr Ser Val Ser Pro Leu His Arg Ser Leu
1 5 10 15

Gln Leu Pro Pro Arg Val Ser Gly Val Arg Cys Asp Gln Cys Ala Arg

			20					25					30		
Gly	Phe	Ser 35	Gly	Ile	Phe	Pro	Ala 40	Cys	His	Pro	Cys	His 45	Ala	Cys	Phe
Gly	Asp 50	Trp	Asp	Arg	Val	Val 55	Gln	Asp	Leu	Ala	Ala 60	Arg	Thr	Gln	Arg
Leu 65	Glu	Gln	Arg	Ala	Gln 70	Glu	Leu	Gln	Gln	Thr 75	Gly	Val	Leu	Gly	Ala 80
Phe	Glu	Ser	Ser	Phe 85	Trp	His	Met	Gln	Glu 90	Lys	Leu	Gly	Ile	Val 95	Gln
Gly	Ile	Val	Gly 100	Ala	Arg	Asn	Thr	Ser 105	Ala	Ala	Ser	Thr	Ala 110	Gln	Leu
Val	Glu	Ala 115	Thr	Glu	Glu	Leu	Arg 120	Arg	Glu	Ile	Gly	Glu 125	Ala	Thr	Glu
His	Leu 130	Thr	Gln	Leu	Glu	Ala 135	Asp	Leu	Thr	Asp	Val 140	Gln	Asp	Glu	Asn
Phe 145	Asn	Ala	Asn	His	Ala 150	Leu	Ser	Gly	Leu	Glu 155	Arg	Asp	Arg	Leu	Ala 160
Leu	Asn	Leu	Thr	Leu 165	Arg	Gln	Leu	Asp	Gln 170	His	Leu	Asp	Leu	Leu 175	Lys
His	Ser	Asn	Phe 180	Leu	Gly	Ala	Tyr	Asp 185	Ser	Ile	Arg	His	Ala 190	His	Ser
Gln	Ser	Ala 195	Glu	Ala	Glu	Arg	Arg 200	Ala	Asn	Thr	Ser	Ala 205	Leu	Ala	Val
Pro	Ser 210	Pro	Val	Ser	Asn	Ser 215	Ala	Ser	Ala	Arg	His 220	Arg	Thr	Glu	Ala
Leu 225	Met	Asp	Ala	Gln	Lys 230	Glu	Asp	Phe	Asn	Ser 235	Lys	His	Met	Ala	Asn 240
Gln	Arg	Ala	Leu	Gly 245	Lys	Leu	Ser	Ala	Ніs 250	Thr	His	Thr	Leu	Ser 255	Leu
Thr	Asp	Ile	Asn 260	Glu	Leu	Val	Cys	Gly 265	Ala	Pro	Gly	Asp	Ala 270	Pro	Cys
Ala	Thr	Ser 275	Pro	Cys	Gly	Gly	Ala 280	Gly	Cys	Arg	Asp	Glu 285	Asp	Gly	Gln
Pro	Arg	Cys	Gly	Gly	Leu	Ser	Cys	Asn	Gly	Ala	Ala	Ala	Thr	Ala	Asp

	290	)				295	5				300		•		
Leu 305		a Leu	ı Gly	/ Arg	310		, His	Thr	Gln	Ala 315		Leu	Gln	Arg	Ala 320
Leu	Ala	Glu	ı Gly	7 Gly 325	y Ser	Ile	Leu	Ser	Arg 330		Ala	Glu	Thr	Arg 335	
Gln	Ala	Ser	Glu 340		Gln	Gln	Arg	Ala 345		Ala	Ala	Leu	Asp 350		Ala
Asn	Ala	355	Arg	, Gly	Gln	Val	Glu 360		Ala	Asn	Gln	Glu 365		Gln	Glu
Leu	Ile 370		Ser	. Val	Lys	Asp 375		Leu	Asn	Gln	Glu 380	Gly	Ala	Asp	Pro
Asp 385	Ser	lle	Glu	Met	Val 390	Ala	Thr	Arg	Val	Leu 395	Glu	Leu	Ser	Ile	Pro 400
Ala	Ser	Ala	Glu	Gln 405	. Ile	Gln	His	Leu	Ala 410	Gly	Ala	Ile	Ala	Glu 415	Arg
Val	Arg	Ser	Leu 420		Asp	Val	Asp	Ala 425	Ile	Leu	Ala		Thr 430	Val	Gly
Asp	· Val	Arg 435		Ala	Glu	Gln	Leu 440	Leu	Gln	Asp	Ala	Arg 445	Arg	Ala	Arg
Ser	Trp 450	Ala	Glu	Asp	Glu	Lys 455	Gln	Lys	Ala	Glu	Thr 460	Val	Gln	Ala	Ala
Leu 465	Glu	Glu	Ala	Gln	Arg 470	Ala	Gln	Gly	Ile	Ala 475	Gln	Gly	Ala	Ile	Arg 480
Gly	Ala	Val	Ala	Asp 485	Thr	Arg	Asp	Thr	Glu 490	Gln	Thr	Leu	Tyr	Gln 495	Val
31n	Glu	Arg	Met 500	Ala	Gly	Ala	Glu	Arg 505	Ala	Leu	Ser	Ser	Ala 510	Gly	Glu
Arg	Ala	Arg 515	Gln	Leu	Asp	Ala <sub>.</sub>	Leu 520	Leu	Glu	Ala	Leu	Lys 525	Leu	Lys	Arg
Ala	Gly 530	Asn	Ser	Leu	Ala	Ala 535	Ser	Thr	Ala	Glu	Glu 540	Thr	Ala	Gly	Ser
i 45					Gln 550					555					560
ly	Asp	Gln	Tyr	Gln	Thr	Val	Lys	Ala	Leu	Ala	Glu	Arg	Lys	Ala	Gln

WO 00/55173 PCT/US00/05881

O <sub>1</sub>	Val	Leu	Ala 580	Ala	Gln	Ala	Arg	Ala 585	Glu	Gln	Leu	Arg	Asp 590	Glu	Ala
Arg	Asp	Leu 595	Leu	Gln	Ala	Ala	Gln 600	Asp	Lys	Leu	Gln	Arg 605	Leu	Gln	Glu
Leu	Glu 610	Gly	Thr	туг	Glu	Glu 615	Asn	Glu	Arg	Ala	Leu 620	Glu	Ser	Lys	Ala
Ala 625	Gln	Leu	Asp	Gly	Leu 630	Glu	Ala	Arg	Met	Arg 635	Ser	Val	Leu	Gln	Ala 640
Ile	Asn	Leu	Gln	Val 645	Gln	Ile	Tyr	Asn	Thr 650	Cys	Gln				
<211 <212 <213 <220		O6 RT OMO S	sapie	ens											
122	2> (8	241													
	•	aa e	quals	s any	y of	the	nati	ıral	ly o	cur	ring	L-ar	nino	acio	is
< 400	3> Xa 0> 60	aa ed													
<223 <400 Gly 1	3> Xa 0> 60 Ala	aa ed 58	Arg	Ser 5	Ser	Cys	Ala	Glu	Leu 10	Gln	Ala	Arg	Val	Met 15	Ala
<222 <400 Gly 1 Ala	3> X3 0> 60 Ala Leu	aa ed 8 Val	Arg Gln 20	Ser 5 Pro	Ser Gln	Cys Val	Ala Ala	Glu Glu 25 Ser	Leu 10 Cys	Gln Trp	Ala Pro	Arg Arg	Val Pro 30	Met 15 Gly	Ala Glu
<223 <400 Gly 1 Ala	3> Xa D> 66 Ala Leu Ser	aa ed 88 Val Arg	Arg Gln 20 Arg	Ser 5 Pro Ser	Ser Gln Ser	Cys Val Gly	Ala Ala Pro 40	Glu Glu 25 Ser	Leu 10 Cys Pro	Gln Trp Ser	Ala Pro Trp	Arg Arg Pro 45	Val Pro 30 Cys	Met 15 Gly Gln	Ala Glu Arg
<22: <400 Gly 1 Ala Pro	3> Xa D> 60 Ala Leu Ser Ala 50	Arg Gly 35	Arg Gln 20 Arg Cys	Ser 5 Pro Ser Asn	Ser Gln Ser Leu	Cys Val Gly Ile 55	Ala Ala Pro 40 Gly	Glu 25 Ser Glu	Leu 10 Cys Pro	Gln Trp Ser	Ala Pro Trp Asp	Arg Arg Pro 45	Val Pro 30 Cys	Met 15 Gly Gln	Ala Glu Arg
<2223 <400 Gly 1 Ala Pro Arg Leu 65	Ser Ala 50	Arg Gly 35	Arg Gln 20 Arg Cys	Ser 5 Pro Ser Asn	Ser Gln Ser Leu Ala	Cys Val Gly Ile 55	Ala Ala Pro 40 Gly	Glu 25 Ser Glu	Leu 10 Cys Pro His	Gln Trp Ser Thr	Ala Pro Trp Asp 60 Val	Arg Pro 45 Tyr	Pro 30 Cys Asn	Met 15 Gly Gln Gln	Ala Glu Arg Gly Ser 80

Leu	Glu	115		Thr	Pro	Arg	Trp 120		Asn	Туг	Val	Lys 125		Val	Ile
Gln	Tyr 130		Pro	Ala	Ala	Pro 135		Pro	Gly	Phe	Ser 140	Ala	Val	Val	Val
Ser 145		Val	Pro	Leu	Gly 150	Gly	Gly	Leu	Ser	Ser 155	Ser	Ala	Ser	Leu	Glu 160
Val	Ala	Thr	Tyr	Thr 165		Leu	Gln	Gln	Leu 170		Pro	Asp	Ser	Gly 175	
Ile	Ala	Ala	Arg 180	Ala	Gln	Val	Cys	Gln 185	Gln	Ala	Glu	His	Ser 190	Phe	Ala
Gly	Met	Pro 195	Cys	Gly	Ile	Met	Asp 200	Gln	Phe	Ile	Ser	Leu 205		Gly	Gln
Lys	Gly 210		Ala	Leu	Leu	Ile 215	Asp	Cys	Arg	Ser	Leu 220	Glu	Thr	Ser	Leu
Val 225	Pro	Leu	Ser	Asp	Pro 230	Lys	Leu :	Ala	Val	Leu 235	Ile	Thr	Asn	Ser	Asn 240
Val	Arg	His	Ser	Leu 245	Ala	Ser	Ser	Glu	Tyr 250	Pro	Val	Arg	Arg	Arg 255	Gln
Cys	Glu	Glu	Val 260	Ala	Arg	Ala	Leu	Gly 265	Lys	Glu	Ser	Leu	Arg 270	Glu	Val
Gln	Leu	Glu 275	Glu	Leu	Glu	Ala	Ala 280	Arg	Asp	Leu	Val	Ser 285	Lys	Glu	Gly
Phe	Arg 290	Arg	Ala	Arg	His	Val 295	Val	Gly	Glu	Ile	Arg 300	Arg	Thr	Ala	Gln
Ala 305	Ala	Ala	Ala	Leu	Arg 310	Arg	Gly	Asp	Tyr	Arg 315	Ala	Phe	Gly	Arg	Leu 320
Met	Val	Glu	Ser	His 325	Arg	Ser	Leu	Arg	Asp 330	Asp	Tyr	Glu	Val	Ser 335	Суз
Pro	Glu	Leu	Asp 340	Gln	Leu	Val	Glu	Ala 345	Ala	Leu	Ala	Val	Pro 350	Ġly	Val
ſyr	Gly	Ser 355	Arg	Met	Thr	Gly	Gly 360	Gly	Phe	Gly	Gly <sup>.</sup>	Cys 365	Thr	Val	Thr
eu	Leu 370	Glu	Ala	Ser		Ala 375	Pro	His	Ala	Met	Arg 380	His	Ile	Gln	Glu

WO 00/55173 PCT/US00/05881

638

His Tyr Gly Gly Thr Ala Thr Phe Tyr Leu Ser Gln Ala Ala Asp Gly 385 390 395 400

Ala Lys Val Leu Cys Leu 405

<210> 669

<211> 86

<212> PRT

<213> Homo sapiens

<400> 669

Pro Glu Pro Thr Val Val Met Ala Ala Arg Ala Leu Cys Met Leu Gly
1 5 10 15

Leu Val Leu Ala Leu Leu Ser Ser Ser Ser Ala Glu Glu Tyr Val Gly
20 25 30

Leu Ser Ala Asn Gln Cys Ala Val Pro Ala Lys Asp Arg Val Asp Cys  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Gly Tyr Pro His Val Thr Pro Lys Glu Cys Asn Asn Arg Gly Cys Cys 50 55 60

Phe Asp Ser Arg Ile Pro Gly Val Pro Trp Cys Phe Lys Pro Leu Gln 65 70 75 80

Glu Ala Glu Cys Thr Phe 85

<210> 670

<211> 392

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 670

Gly Gly Ala Arg Xaa Ser Pro Ala Thr Gln Pro Pro Pro Leu Leu 1 5 10 15

Pro Pro Ser Ala Thr Gly Pro Asp Ala Thr Val Gly Gly Pro Ala Pro 20 25 30

Thr	Pro	Leu 35		Pro	Pro	Ser	Ala 40	Thr	Ala	Ser	Val	Lys 45		Glu	Pro
Glu	Asn 50	Lys	Tyr	Leu	Pro	Glu 55	Leu	Met	Ala	Glu	Lys 60		Ser	Leu	Asp
Pro 65		Phe	Thr	His	Ala 70	Met	Gln	Leu	Leu	Thr 75		Glu	Ile	Glu	Lys
Ile	Gln	Lys	Gly	Asp 85	Ser	Lys	Lys	Asp	Asp 90	Glu	Glu	Asn	Tyr	Leu 95	Asp
Leu	Phe	Ser	His 100	Lys	Asn	Met	Lys	Leu 105	Lys	Glu	Arg	Val	Leu 110	Ile	Pro
		115					Asn 120					125			
	130					135	Leu				140				
145					150		Met			155					160
				165			Lys		170		•			175	
			180				Gly	185					190		
		195					Val 200					205			
	210					215	Gln				220				
225					230		Gly			235					240
				245			Pro		250					255	
			260					265					270		
		275					Arg 280					285			
Arg	Gly 290	Ala	Pro	Ala		Arg 295	Ala	Arg	Thr	Ala	Gly 300	Ile	Gln	Arg	Ile

Pro Leu Pro Pro Pro Pro Ala Pro Glu Thr Tyr Glu Glu Tyr Gly Tyr 305 310 315 320

Asp Asp Thr Tyr Ala Glu Gln Ser Tyr Glu Gly Tyr Glu Gly Tyr Tyr
325 330 335

Ser Gln Ser Gln Gly Asp Ser Glu Tyr Tyr Asp Tyr Gly His Gly Glu 340 345 350

Val Gln Asp Ser Tyr Glu Ala Tyr Gly Gln Asp Asp Trp Asn Gly Thr 355 360 365

Arg Pro Ser Leu Lys Ala Pro Pro Ala Arg Pro Val Lys Gly Ala Tyr 370 375 380

Arg Glu His Pro Tyr Gly Arg Tyr 385 390

<210> 671

<211> 180

<212> PRT

<213> Homo sapiens

<400> 671

Arg Asn Met Ser Ser Phe Ser Arg Ala Pro Gln Gln Trp Ala Thr Phe
1 5 10 15

Ala Arg Ile Trp Tyr Leu Leu Asp Gly Lys Met Gln Pro Pro Gly Lys
20 25 30

Leu Ala Ala Met Ala Ser Ile Arg Leu Gln Gly Leu His Lys Pro Val
35 40 45

Tyr His Ala Leu Ser Asp Cys Gly Asp His Val Val Ile Met Asn Thr 50 55 60

Arg His Ile Ala Phe Ser Gly Asn Lys Trp Glu Gln Lys Val Tyr Ser 65 70 75 80

Ser His Thr Gly Tyr Pro Gly Gly Phe Arg Gln Val Thr Ala Ala Gln 85 90 95

Leu His Leu Arg Asp Pro Val Ala Ile Val Lys Leu Ala Ile Tyr Gly
100 105 110

Met Leu Pro Lys Asn Leu His Arg Arg Thr Met Met Glu Arg Leu His 115 120 125

Leu Phe Pro Asp Glu Tyr Ile Pro Glu Asp Ile Leu Lys Asn Leu Val

130

140

Glu Glu Leu Pro Gln Pro Arg Lys Ile Pro Lys Arg Leu Asp Glu Tyr 145 150 155 160

135

Thr Gln Glu Glu Ile Asp Ala Phe Pro Arg Leu Trp Thr Pro Pro Glu 165 170 175

Asp Tyr Arg Leu 180

<210> 672

<211> 78

<212> PRT

<213> Homo sapiens

<400> 672

Glu Asn Tyr Gln Phe Thr Tyr Arg Arg Phe Phe Phe Pro Asn Ser Arg

1 5 10 15

Phe His Pro Arg Pro Phe Glu Glu Leu Gln Thr Leu Ser Leu Arg Lys
20 25 30

Glu Arg Gly Gln Pro Lys Ile Asn Ala Lys Phe Ala Tyr Thr Pro Ser 35 40 45

His Ser Asp Val Leu Val Val Thr Tyr Tyr Gln Cys Gly Arg Glu Pro 50 55 60

Lys Leu His Phe Arg Ser Lys Tyr Ser Leu Cys Arg Tyr Cys 65 70 75

<210> 673

<211> 139

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

WO 00/55173 PCT/US00/05881

642

<400> 673 Pro Thr Arg Pro Pro Leu Cys Arg Gly Ala Ala Ser Arg Gly Leu Leu 10 Cys Lys Trp Ala Pro Trp Pro Ser Ala Pro Val Pro Ala Thr Arg Asp Arg Ala Pro Arg Pro Ala Arg Gly Arg Arg Pro Gly Arg Leu Gly Ser 40 Thr Ser Ser Asn Ser Ser Cys Ser Ser Thr Glu Cys Pro Gly Glu Ala 55 Ile Pro His Pro Pro Gly Leu Pro Lys Ala Asp Pro Gly His Trp Trp Ala Ser Phe Phe Phe Gly Lys Ser Thr Leu Pro Phe Met Ala Thr Val 90 Leu Glu Ser Ala Glu His Ser Glu Pro Pro Gln Ala Ser Ser Met 100 105 Xaa Ala Cys Gly Leu Ala Arg Glu Ala Pro Arg Lys Gln Pro Gly Gly 120 Gln Ser Ser Xaa Ala Ser Ala Gly Pro Pro Ser 130 135 <210> 674 <211> 279 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (7) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (58) <223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (193)

<400> 674

Glu 1		Ala	His	Ser 5		Xaa	His	Gly	Val 10	Asp	Gly	Glu	Pro	Cys 15	Pro
Glu	Asp	Туг	Lys 20		Ile	Ser	Glu	Asn 25	Cys	Glu	Thr	Ser	Thr 30	Met	Asn
Ile	Asp	Arg 35		Ile	Thr	His	Leu 40	Gln	His	Cys	Thr	Phe 45	Val	Asp	Asp
Cys	Ser 50		Ser	Asn	Cys	Leu 55	Cys	Gly	Xaa	Phe	Ser 60	Ile	Arg	Cys	Trp
Tyr 65	Asp	Lys	Asp	Gly	Arg 70	Leu	Leu	Gln	Glu	Phe 75	Asn	Lys	Ile	Glu	Pro 80
Pro	Leu	Ile	Phe	Glu 85	Cys	Asn	Gln	Ala	Cys 90	Ser	Cys	Trp	Arg	Asn 95	Cys
Lys	Asn	Arg	Val 100	Val	Gln	Ser	Gly	11e 105	Lys	Val	Arg	Leu	Gln 110	Leu	Туг
Arg	Thr	Ala 115	Lys	Met	Gly	Trp	Gly 120	Val	Arg	Ala	Leu	Gln 125	Thr	Ile	Pro
Gln	Gly 130	Thr	Phe	Ile	Cys	Glu 135	Tyr	Val	Gly	Glu	Leu 140	Ile	Ser	Asp	Ala
Glu 145	Ala	Asp	Val	Arg	Glu 150	Asp	Asp	Ser	туг	Leu 155	Phe	Asp	Leu	Asp	Asn 160
Lys	Asp	Gly	Glu	Val 165	Tyr	Cys	Ile	Asp	Ala 170	Arg	Tyr	Tyr	Gly	Asn 175	Ile
Ser	Arg	Phe	Ile 180	Asn	His	Leu	Cys	Asp 185	Pro	Asn	Ile	Ile	Pro 190	Val	Arg
Xaa	Phe	Met 195	Leu	His	Gln	Asp	Leu 200	Arg	Phe	Pro	Arg	11e 205	Ala	Phe	Phe
Ser	Ser 210	Arg	Asp	Ile	Arg	Thr 215	Gly	Glu	Glu	Leu	Gly 220	Phe	Asp	Tyr	Gly
Asp 225	Arg	Phe	Trp	Asp	11e 230	Lys	Ser	Lys	Tyr	Phe 235	Thr	Суз	Gln	Cys	Gly 240
Ser	Glu	Lys	Cys	Lys 245	His	Ser	Ala	Glu	Ala 250	Ile	Ala	Leu		Gln 255	Ser
Arg	Leu	Ala	Arg 260	Leu	Asp	Pro	His	Pro 265	Glu	Leu	Leu	Pro	Glu 270	Leu	Gly

644

Ser Leu Pro Pro Val Asn Thr 275

<210> 675 <211> 405 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (393) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (394) <223> Xaa equals any of the naturally occurring L-amino acids Arg Asn Thr Leu Gly Arg Gly Thr Thr Ile Thr Leu Val Leu Lys Glu Glu Ala Ser Asp Tyr Leu Glu Leu Asp Thr Ile Lys Asn Leu Val Lys 20 Lys Tyr Ser Gln Phe Ile Asn Phe Pro Ile Tyr Val Trp Ser Ser Lys Thr Glu Thr Val Glu Glu Pro Met Glu Glu Glu Ala Ala Lys Glu Glu Lys Glu Glu Ser Asp Asp Glu Ala Ala Val Glu Glu Glu Glu Glu Glu Lys Lys Pro Lys Thr Lys Lys Val Glu Lys Thr Val Trp Asp Trp 90 Glu Leu Met Asn Asp Ile Lys Pro Ile Trp Gln Arg Pro Ser Lys Glu Val Glu Glu Asp Glu Tyr Lys Ala Phe Tyr Lys Ser Phe Ser Lys Glu 120 Ser Asp Asp Pro Met Ala Tyr Ile His Phe Thr Ala Glu Gly Glu Val 135 Thr Phe Lys Ser Ile Leu Phe Val Pro Thr Ser Ala Pro Arg Gly Leu

Phe	Asp	Glu	Tyr	Gly 165		Lys	Lys	Ser	170		Ile	Lys	Leu	Туг 175	
Arg	Arg	Val	Phe 180		Thr	Asp	Asp	Phe 185		Asp	Met	Met	Pro 190	Lys	Tyr
Leu	Asn	Phe 195	Val	Lys	Gly	Val	Val 200		Ser	Asp	Asp	Leu 205	Pro	Leu	Asn
Val	Ser 210	Arg	Glu	Thr	Leu	Gln 215		His	Lys	Leu	Leu 220		Val	Ile	Arg
Lys 225	Lys	Leu	Val	Arg	Lys 230		Leu	Asp	Met	Ile 235		Lys	Ile	Ala	Asp 240
Asp	Lys	Тyr	Asn	Asp 245	Thr	Phe	Trp	Lys	Glu 250	Phe	Gly	Thr	Asn	Ile 255	Lys
Leu	Gly	Val	Ile 260	Glu	Asp	His	Ser	Asn 265	Arg	Thr	Arg	Leu	Ala 270		Leu
Leu	Arg	Phe 275	Gln	Ser	Ser	His	His 280	Pro	Thr	Asp	Ile	Thr 285	Ser	Leu	Asp
Gln	Tyr 290	Val	Glu	Arg	Met	Lys 295	Glu	Lys	Gln	Asp	Lys 300	Ile	туг	Phe	Met
Ala 305	Gly	Ser	Ser	Arg	Lys 310	Glu	Ala	Glu	Ser	Ser 315	Pro	Phe	Val	Glu	Arg 320
Ļeu	Leu	Lys	Lys	Gly 325	Tyr	Glu	Val	Ile	Туг 330	Leu	Thr	Glu	Pro	Val 335	Asp
Glu	Tyr	Cys	Ile 340	Gln	Ala	Leu	Pro	Glu 345	Phe	Asp	Gly	Lys	Arg 350	Phe	Gln
Asn	Val	Ala 355	Lys	Glu	Gly	Val	Lys 360	Phe	Asp	Glu	Ser	Glu 365	Lys	Thr	Lys
Glu	Ser 370	Arg	Glu	Ala	Val	Glu 375	Lys	Glu	Phe	Glu	Pro 380	Leu	Leu	Asn	Trp
Met 385	Lys	Asp	Lys	Ala	Leu 390	Lys	Gly	Xaa	Xaa	Leu 395	Trp	Glu	Ile	Leu	Pro 400

Ile Cys Gly Lys Tyr

	11>														
	12> 1														
<2	13> 1	omo	sap.	iens											
<22	20>														
<22	21> 8	SITE													
<22	22> (	(5)													
<22	3> }	(aa e	equa:	ls a	ny of	f the	e nat	ura	lly (	occui	ring	L-a	mino	aci	ds
<22	:0>														
<22	1> 5	ITE													
<22	2> (	6)													
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Asn	Asp	Ser	Leu	хаа	Xaa	Lys	Ala	Glv	Thr	Pro	Ala	Glv	Asn	Ara	Yaa
1				5					10			017	11011	15	
														10	
Gly	Ile	Pro	Gly 20		Thr	His	Ala	Ser 25		Ala	Ala	Pro	Phe 30	Ala	Ala
Ala	Leu	Ala 35		Asp	Pro	Asn	Pro 40		Ser	Pro	Leu	Pro 45		His	Arg
Pro	Arg	Leu	His	Arg	Gly	Pro	Gly	Pro	Pro	Ala	Arg	Leu	Ala	Ala	Ala
	50					55					60				
Met	Ala	Asp	Pro	Lys	Tyr	Ala	Asp	Leu	Pro	Gly	Ile	Ala	Arg	Asn	Glu
65					70					75			_		80
<b>D</b>			_												
Pro	Asp	Vai	Tyr		Thr	Ser	Asp	Leu			Asp	Asp	Gln	Ala	Glu
				85					90					95	
Phe	Asp	Ala	Glu	Glu	Leu	Thr	Ser	Thr	Ser	Val	Glu	His	Ile	Tle	Val
	_		100					105					110	110	Val
Asn	Pro	Asn	Ala	Ala	Tyr	Asp	Lys	Phe	Lys	Asp	Lys	Arg	Val	Glv	Thr
		115					120				-	125		-4	
Lys	Gly	Leu	Asp	Phe	Ser	Asp	Arg	Ile	Gly	Lys	Thr	Lys	Arg	Thr	Gly
	130					135					140		-		-
Tyr	Glu	Ser	Gly	Glu		Glu	Met	Leu	Gly	Glu	Gly	Leu	Gly	Val	Lys
145					150					155					160
Glu	Thr	Pro	Gln	Gln	Lys	Tyr	Gln	Arg	Leu	Leu	His	Glu	Val	Gln	Glu

				165					170					175	
Leu	Thr	Thr	Glu 180		Glu	Lys	Ile	Lys 185	Thr	Thr	Val	Lys	Glu 190	Ser	Ala
Thr	Glu	Glu 195	Lys	Leu	Thr	Pro	Val 200		Leu	Ala	Lys	Gln 205	Leu	Ala	Ala
Leu	Lys 210	Gln	Gln	Leu	Val	Ala 215	Ser	His	Leu	Glu	Lys 220	Leu	Leu	Gly	Pro
Asp 225	Ala	Ala	Ile	Asn	Leu 230	Thr	Asp	Pro	Asp	Gly 235	Ala	Leu	Ala	Lys	Arg 240
Leu	Leu	Leu	Gln	Leu 245	Glu ,	Ala	Thr	Lys	Asn 250	Ser	Lys	Gly	Gly	Ser 255	Gly
Gly	Lys	Thr	Thr 260	Gly	Thr	Pro	Pro	Asp 265	Ser	Ser	Leu	Val	Thr 270	туг	Glu
Leu	His	Ser 275	Arg	Pro	Glu	Gln	Asp 280	Lys	Phe	Ser	Glņ	Ala 285	Ala	Lys	Val
Ala	Glu 290	Leu	Glu	Lys	Arg	Leu 295	Thr	Glu	Leu	Glu	Thr 300	Ala	Val	Arg	Cys
Asp 305	Gln	Asp	Ala	Gln	Asn 310	Pro	Leu	Ser	Ala	Gly 315	Leu	Gln	Gly	Ala	Cys 320
Leu	Met	Glu	Thr	Val 325	Glu	Leu	Leu	Gln	Ala 330	Lys	Val	Ser	Ala	Leu 335	Asp
		Val	340					345					350		-
		Asn 355					360					365			
	370	Ser				375		(	(		380				
385		Ala			390					395					400
		Leu		405					410					415	
Leu	Asp	Thr	Thr 420	Gln	Gln	Met	Ile	Ala 425	Asn	Ser	Leu	Lys	Asp 430	Asn	Thr
hr	Leu	Leu	Thr	Gln	Val	Gln	Thr	Thr	Met	Ara	Glu	Asn	Leu	Ala	Thr

WO 00/55173 PCT/US00/05881

648

435 440 445

Val Glu Gly Asn Phe Ala Ser Ile Asp Glu Arg Met Lys Lys Leu Gly
450 455 460

Lys 465

<210> 677

<211> 48

<212> PRT

<213> Homo sapiens

<400> 677

Ser Ser Phe Leu Asn Ser Asp Leu Gly Leu Ser Leu Ala Arg Asn Leu 1 5 10 15

Ala Phe Ser Phe Thr Thr Lys Glu Arg Asp Gln Lys Pro Leu Ile Phe 20 25 30

Asn Phe His Lys Met Leu Glu Val Tyr Ile Tyr Ile Tyr Ile Phe Leu 35 40 45

<210> 678

<211> 940

<212> PRT

<213> Homo sapiens

<400> 678

Val Leu Gly Glu Gly Ile Ser Phe Leu Leu Ser Pro Pro Leu Pro Thr
1 5 10 15

Pro Ser Ile Asn Ile Ile Leu Leu Lys Ile Leu Arg Cys Gln Ala Ala 20 25 30

Lys Val Glu Ser Ala Ile Ala Glu Gly Gly Ala Ser Arg Phe Ser Ala 35 40 45

Ser Ser Gly Gly Gly Ser Arg Gly Ala Pro Gln His Tyr Pro Lys
50 . 55 60

Thr Ala Gly Asn Ser Glu Phe Leu Gly Lys Thr Pro Gly Gln Asn Ala 65 70 75 80

Gln	Lys	Tr	) Ile	Pro 85		Arg	Ser	Thi	Arg		Asp	Asp	Asn	Ser 95	
Ala	Asr	Asr	Ser 100		. Asn	Glu	Lys	Glu 105		His	Asp	Ala	Ile 110		Arg
Lys	Val	. Arg	g Gly	Ile	Leu	Asn	Lys 120		Thr	Pro	Glu	Lys 125		Asp	Lys
Leu	Cys 130		Glu	Leu	Leu	Asn 135		Gly	Val	Glu	Ser 140	Lys	Leu	Ile	Leu
Lys 145		Val	. Ile	Leu	Leu 150	Ile	Val	Asp	Lys	Ala 155	Leu	Glu	Glu	Pro	Lys 160
Tyr	Ser	Ser	Leu	Tyr 165		Gln	Leu	Cys	Leu 170		Leu	Ala	Glu	Asp 175	Ala
Pro	Asn	Phe	Asp 180		Pro	Ala	Ala	Glu 185		Gln	Pro	Gly	Gln 190	Lys	Gln
Ser	Thr	Thr 195	Phe	Arg	Arg	Leu	Leu 200	Ile	Ser	Lys	Leu	Gln 205	Asp	Glu	Phe
Glu	Asn 210		Thr	Arg	Asn	Val 215	Asp	Val	Tyr	Asp	Lys 220	Arg	Glu	Asn	Pro
Leu 225	Leu	Pro	Glu	Glu	Glu 230	Glu	Gln	Arg	Åla	Ile 235	Ala	Lys	Ile	Lys	Met 240
Leu	Gly	Asn	Ile	Lys 245	Phe	Ile	Gly	Glu	Leu 250	Gly	Lys	Leu	Asp	Leu 255	Ilė
His	Glu	Ser	Ile 260	Leu	His	Lys	Cys	Ile 265	Lys	Thr	Leu	Leu	Glu 270	Lys	Lys
Lys	Arg	Val 275	Gln	Leu	Lys	Asp	Met 280	Gly	Glu	Asp	Leu	Glu 285	Cys	Leu	Cys
Gln	Ile 290	Met	Arg	Thr	Val	Gly 295	Pro	Arg	,Leu	Asp	His 300	Glu	Arg	Ala	Lys
Ser 305	Ļeu	Met	Asp	Gln	Туг 310	Phe	Ala	Arg	Met	Cys 315	Ser	Leu	Met	Leu	Ser 320
Lys	Glu	Leu	Pro	Ala 325	Arg	Ile	Arg	Phe	Leu 330	Leu	Gln	Asp	Thr	Val 335	Glu
Leu	Arg	Glu	His 340	His	Trp	Val	Pro	Arg 345	Lys	Ala	Phe	Leu	Asp 350	Asn	Gly

Pro	Lys	Thr 355	Ile	Asn	Gln	Ile	Arg 360	Gln	Asp	Ala	Val	Lys 365	Asp	Leu	Gly
Val	Phe 370	Ile	Pro	Ala	Pro	Met 375	Ala	Gln	Gly	Met	Arg 380	Ser	Asp	Phe	Phe
Leu 385	Glu	Gly	Pro	Phe	Met 390	Pro	Pro	Arg	Met	Lys 395	Met	Asp	Arg	Asp	Pro 400
Leu	Gly	Gly	Leu	Ala 405	Asp	Met	Phe	Gly	Gln 410	Met	Pro	Gly	Ser	Gly 415	Ile
Gly	Thr	Gly	Pro 420	Gly	Val	Ile	Gln	Asp 425	Arg	Phe	Ser	Pro	Thr 430	Met	Gly
Arg	His	Arg 435	Ser	Asn	Gln	Leu	Phe 440	Asn	Gly	His	Gly	Gly 445	His	Ile	Met
Pro	Pro 450	Thr	Gln	Ser	Gln	Phe 455	Gly	Glu	Met	Gly	Gly 460	Lys	Phe	Met	Lys
Ser 465	Gln	Gly	Leu	Ser	Gln 470	Leu	Tyr	His	Asn	Gln 475	Ser	Gln	Gly	Leu	Leu 480
Ser	Gln	Leu	Gln	Gly 485	Gln	Ser	Lys	Asp	Met 490	Pro	Pro	Arg	Phe	Ser 495	Lys
Lys	Gly	Gln	Leu 500	Asn	Ala	Asp	Glu	11e 505	Ser	Leu	Arg	Pro	Ala 510	Gln	Ser
Phe	Leu	Met 515	Asn	Lys	Asn	Gln	Val 520	Pro	Lys	Leu	Gln	Pro 525	Gln	Ile	Thr
Met	Ile 530	Pro	Pro	Ser	Ala	Gln 535	Pro	Pro	Arg	Thr	Gln 540	Thr	Pro	Pro	Leu
Gly 545	Gln	Thr	Pro	Gln	Leu 550	Gly	Leu	Lys	Thr	Asn 555	Pro	Pro	Leu	Ile	Gln 560
Glu	Lys	Pro	Ala	Lys 565	Thr	Ser	Lys	Lys	Pro 570	Pro	Pro	Ser	Lys	Glu 575	Glu
Leu	Leu	Lys	Leu 580	Thr	Glu	Thr	Val	Val 585	Thr	Glu	Tyr	Leu	Asn 590	Ser	Gly
Asn	Ala	Asn 595	Glu	Ala	Val	Asn	Gly 600	Val	Arg	Glu	Met	Arg 605	Ala	Pro	Lys
His	Phe 610	Leu	Pro	Glu	Met	Leu 615	Ser	Lys	Val	Ile	Ile 620	Leu	Ser	Leu	Asp

65 l

Arg 625	Ser	Asp	Glu	Asp	630		Lys	Ala		Ser 635		Ile	Ser	Leu	Leu 640
Lys	Gln	Glu	Gly	1le 645		Thr	Ser	Asp	650		. Met	Gln	Ala	Phe	
Asn	Val	Leu	Asp 660	Gln	Cys	Pro	Lys	Leu 665		val	. Asp	Ile	Pro 670		Val
Lys	Ser	Туг 675	Leu	Ala	Gln	Phe	Ala 680	Àla	Arg	Ala	Ile	Ile 685		Glu	Leu
Val	Ser 690	Ile	Ser	Glu	Leu	Ala 695		Pro	Leu	Glu	Ser 700	Gly	Thr	His	Phe
Pro 705	Leu	Phe	Leu	Leu	Cys 710	Leu	Gln	Gln	Leu	Ala 715		Leu	Gln	Asp	Arg 720
Ģlu	Trp	Leu	Thr	Glu 725	Leu	Phe	Gln	Gln	Ser 730		Val	Asn	Met	Gln 735	Lys
Met	Leu	Pro	Glu 740	Ile	Asp	Gln	Asn	Lys 745	Asp	Arg	Met	Leu	Glu 750	Ile	Leu
Glu	Gly	Lys 755	Gly	Leu	Ser	Phe	Leu 760	Phe	Pro	Leu	Leu	Lys 765	Leu	Glu	Lys
Glu	Leu 770	Leu	Lys	Gln	Ile	Lys 775	Leu	Asp	Pro	Ser	Pro 780	Gln	Thr	Ile	туг
Lys 785	Trp	Ile	Lys	Asp	Asn 790	Ile	Ser	Pro	Lys	Leu 795	His	Val	Asp	Lys	Gly 800
Phe	Val	Asn	Ile	Leu 805	Met	Thr	Ser	Phe	Leu 810	Gln	туr	Ile	Ser	Ser 815	Glu
Val	Asn	Pro	Pro 820	Ser	Asp	Glu	Thr	Asp 825	Ser	Ser	Ser	Ala	Pro 830	Ser	Lys
Glu	Gln	Leu 835	Glu	Gln	Glu	Lys	Gln 840	Leu	Leu	Leu	Ser	Phe 845	Lys	Pro	Val
	Gln 850	Lys	Phe	Leu	His	Asp 855	His	Val	Asp	Leu	Gln 860		Ser	Ala	Leu
Tyr 865	Ala	Leu	Gln	Vạl	His 870		Tyr	Asn	Ser	Asn 875	Phe	Pro	Lys	Gly	Met 880
Leu	Leu	Arg	Phe	Phe 885	Val	His	Phe	Tyr	Asp 890	Met	Glu	Ile	Ile	Glu 895	Glu

WO 00/55173 PCT/US00/05881

652

Glu Ala Phe Leu Ala Trp Lys Glu Asp Ile Thr Gln Glu Phe Pro Gly 900 905 910

Lys Gly Lys Ala Leu Phe Gln Val Asn Gln Trp Leu Thr Trp Leu Glu 915 920 925

Thr Ala Glu Glu Glu Glu Ser Glu Glu Glu Ala Asp 930 935 940

<210> 679

<211> 212

<212> PRT

<213> Homo sapiens

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<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (160)

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<222> (172)

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<400> 679

Ser Trp Lys Glu Glu Glu Xaa Lys Pro His Leu Gln Gly Lys Pro Gly
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Arg Pro Leu Ser Pro Ala Asn Val Pro Ala Leu Pro Gly Glu Thr Val 20 25 30

Thr Ser Pro Val Arg Leu His Pro Asp Tyr Leu Ser Pro Glu Glu Ile 35 40 45

Gln Arg Gln Leu Gln Asp Ile Glu Arg Arg Leu Asp Ala Leu Glu Leu 50 55 60

Arg Gly Val Glu Leu Glu Lys Arg Leu Arg Ala Ala Glu Gly Asp Asp 65 70 75 80

Ala Glu Asp Ser Leu Met Val Asp Trp Phe Trp Leu Ile His Glu Lys 85 90 95

Gln Leu Leu Arg Gln Glu Ser Glu Leu Met Tyr Lys Ser Lys Ala

100 105 Gln Arg Leu Glu Glu Gln Gln Leu Asp Ile Glu Gly Glu Leu Arg Arg 120 Leu Met Ala Lys Pro Glu Ala Leu Lys Ser Leu Gln Glu Arg Arg Glu Gln Glu Leu Leu Glu Gln Tyr Val Ser Thr Val Asn Asp Arg Xaa 150 155 Asp Ile Val Asp Ser Leu Asp Glu Asp Arg Leu Xaa Glu Gln Glu Glu 165 170 Asp Gln Met Leu Arg Asp Met Ile Glu Lys Leu Gly Leu Gln Arg Lys 185 Lys Ser Lys Phe Arg Leu Ser Lys Ile Trp Ser Pro Lys Ser Lys Ser 195 200 Ser Pro Ser Gln 210 <210> 680 <211> 412 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (172) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (404) <223> Xaa equals any of the naturally occurring L-amino acids

<400> 680
Val Ala Val Glu Leu Gly Ser Leu Arg Gly Gly Thr Met Ala Ser Glu
1 5 10 15

Lys Pro Leu Ala Ala Val Thr Cys Thr Ala Pro Val Asn Ile Ala Val 20 25 30

Ile Lys Tyr Trp Gly Lys Arg Asp Glu Glu Leu Val Leu Pro Ile Asn 35 40 45

Ser Ser Leu Ser Val Thr Leu His Gln Asp Gln Leu Lys Thr Thr

	50					55					60				
Thr 65	Ala	Val	Ile	Ser	Lys 70	Asp	Phe	Thr	Glu	Asp 75	Arg	Ile	Trp	Leu	Asn 80
Gly	Arg	Glu	Glu	Asp 85	Val	Gly	Gln	Pro	Arg 90	Leu	Gln	Ala	Cys	Leu 95	Arg
Glu	Ile	Arg	Cys 100	Leu	Ala	Arg	Lys	Arg 105	Arg	Asn	Ser	Arg	Asp 110	Gly	Asp
Pro	Leu	Pro 115	Ser	Ser	Leu	Ser	Cys 120	Lys	Val	His	Val	Ala 125	Ser	Val	Asn
Asn	Phe 130	Pro	Thr	Ala	Ala	Gly 135	Leu	Ala	Ser	Ser	Ala 140	Ala	Gly	Tyr	Ala
Cys 145	Leu	Ala	Tyr	Thr	Leu 150	Ala	Arg	Val	Tyr	Gly 155	Val	Glu	Ser	Asp	Leu 160
Ser	Glu	Val	Ala	Arg 165	Arg	Gly	Ser	Gly	Ser 170	Ala	Xaa	Arg	Ser	Leu 175	Tyr
Gly	Gly	Phe	Val 180	Glu	Trp	Gln	Met	Gly 185	Glu	Gln	Ala	Asp	Gly 190	Lys	Asp
Ser	Ile	Ala 195	Arg	Gln	Val	Ala	Pro 200	Glu	Ser	His	Trp	Pro 205	Glu	Leu	Arg
Val	Leu 210	Ile	Leu	Val	Val	Ser 215	Ala	Glu	Lys	Lys	Leu 220	Thr	Gly	Ser	Thr
Val 225	Gly	Met	Arg	Ala	Ser 230	Val	Glu	Thr	Ser	Pro 235	Leu	Leu	Arg	Phe	Arg 240
Ala	Glu	Ser	Val	Val 245	Pro	Ala	Arg	Met	Ala 250	Glu	Met	Ala	Arg	Cys 255	Ile
Arg	Glu	Arg	Asp 260	Phe	Pro	Ser	Phe	Ala 265	Gln	Leu	Thr	Met	Lys 270	Asp	Ser
Asn	Gln	Phe 275	His	Ala	Thr	Cys	Leu 280	Asp	Thr	Phe	Pro	Pro 285		Ser	Tyr
Leu	Asn 290	Ala	Ile	Ser	Trp	Arg 295	Ile	Ile	His	Leu	Val 300	His	Arg	Phe	Asn
Ala 305	His	His	Gly	Asp	Thr 310	Lys	Val	Ala	Tyr	Thr 315		Asp	Ala	Gly	Pro 320
Asn	Ala	Val	Ile	Phe	Thr	Leu	Asp	Asp	Thr	Val	Ala	Glu	Phe	Val	Ala

325 330 Ala Val Trp His Gly Phe Pro Pro Gly Ser Asn Gly Asp Thr Phe Leu 340 345 Lys Gly Leu Gln Val Arg Pro Ala Pro Leu Ser Ala Glu Leu Gln Ala 360 . 365 Ala Leu Ala Met Glu Pro Thr Pro Gly Gly Val Lys Tyr Ile Ile Val 375 Thr Gln Val Gly Pro Gly Pro Gln Ile Leu Asp Asp Pro Cys Ala His 390 Leu Leu Gly Xaa Asp Gly Leu Pro Lys Pro Ala Ala 405 <210> 681 <211> 61 <212> PRT <213> Homo sapiens Lys Lys Thr Arg His Leu Ser Lys Ile Leu Cys Gly Lys Met Thr Val 10 . Asn Lys Met Arg Val Ser Gly Pro Phe Val Leu Leu Ser Phe Phe Asp 25 Tyr Lys Phe Leu Leu Thr His Thr Ile Met Ser Ala Asn Pro Leu Leu 35 . 40 Pro Arg Glu Arg Asn Cys Ala Pro Ser Val Leu Leu Pro 50 55 <210> 682 <211> 243 <212> PRT <213> Homo sapiens Ser Ala Pro Pro Pro Pro Arg Arg Lys Thr Ala Pro Pro Ala His Arg 5 Gln Arg Pro Pro Pro Gln Ser Pro Thr Ala Thr Gly Leu Gly Pro Ala

Asn Lys Val His Ala Ile Pro Leu Arg Ser Ser Trp Val Met Thr Cys 145 150 155 160

Ala Tyr Ala Pro Ser Gly Asn Phe Val Ala Cys Gly Gly Leu Asp Asn 165 170 175

Ile Cys Ser Ile Tyr Ser Leu Lys Thr Arg Glu Ala Thr Ser Gly Ser 180 185 190

Ala Gly Ser Cys Leu Ala Thr Leu Gly Thr Cys Arg Val Ala Ala Ser 195 200 205

Trp Met Thr Thr Lys Ser Ser Pro Ala Leu Gly Ile Pro Pro Val Pro 210 215 220

Cys Gly Thr Leu Arg Gln Ala Ser Arg Gln Trp Val Leu Leu Asp Thr 225 230 235 240

Val Gly Met

<210> 683

<211> 146

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

Ala Pro Pro Ile Leu Glu Leu Arg Glu Lys Leu Lys Pro Glu Leu Met 65 70 75 80

Gly Leu Ile Arg Gln Gln Arg Leu Leu Arg Leu Cys Glu Gly Thr Leu 85 90 95

Phe Arg Lys Ile Ser Ser Arg Arg Gln Asp Lys Leu Trp Phe Cys 100. 105 110

Cys Leu Ser Pro Asn His Lys Leu Leu Gln Tyr Gly Asp Met Glu Glu 115 120 125

Gly Ala Ser Ala Xaa Pro Trp Arg Val Cys Pro Ser Asn Ser Leu Trp 130 135 140

Pro Thr 145

<210> 684

<211> 300

<212> PRT

<213> Homo sapiens

<400> 684

Val Tyr Ser Cys Gly Phe Gln Val Gln Ser Trp Ser Pro Arg Trp Ile
1 5 10 15

Trp Val Thr Thr Lys Ser Lys Ile Gly Ala Pro Arg Ser Ser Phe Cys
20 25 30

Trp His Arg Leu Pro Ser Thr Ser Gln Leu His Leu Cys Pro Ala Glu 35 40 45 WO 00/55173 PCT/US00/05881

Gly	Glu 50	Ala	Pro	Ser	Ala	Gly 55	Glu	Ala	Ala	Pro	Arg 60	Ala	Pro	Thr	Gly
Ser 65	Glu	Pro	Lys	Pro	Gly 70	Ala	Leu	Pro	Trp	Gly 75	Pro	Arg	Ala	Pro	Asp 80
Ser	Glu	Gly	Gly	Gly 85	Gly	Ala	Gly	Ala	Ala 90	Asp	Pro	Ala	Ala	Asn 95	Ala
Gly	His	Gly	Ala 100	Ser	Ser	Glu	Ala	Glu 105	Cys	Gly	Cys	Gln	Arg 110	Thr	Leu
Arg		Met 115	Pro	Ser	Thr	Pro	Gly 120	Pro	Gly	Ala	Ala	Ala 125	Val	Arg	Ala
Leu	Gly 130	Gln	Leu	Phe	His	Ile 135	Ala	Cys	Phe	Thr	Cys 140	His	Gln	Cys	Ala
Gln 145	Gln	Leu	Gln	Gly	Gln 150	Gln	Phe	Tyr	Ser	Leu 155	Glu	Gly	Ala	Pro	Туг 160
Cys	Glu	Gly	Cys	туг 165	Thr	Asp	Thr	Leu	Glu 170	Lys	Cys	Asn	Thr	Cys 175	Gly
Glu	Pro	Ile	Thr 180	Asp	Arg	Met	Leu	Arg 185	Ala	Thr	Gly	Lys	Ala 190	Tyr	His
Pro	His	Cys 195	Phe	Thr	Cys	Val	Val 200	Cys	Ala	Arg	Pro	Leu 205	Glu	Gly	Thr
Ser	Phe 210	Ile	Val	Asp	Gln	Ala 215	Asn	Arg	Pro	His	Cys 220	Val	Pro	Asp	туr
His 225	Lys	Gln	Tyr	Ala	Pro 230	Arg	Cys	Ser	Val	Cys 235	Ser	Glu	Pro	Ile	Met 240
Pro	Glu	Pro	Gly	Arg 245	Asp	Glu	Thr	Val	Arg 250	Val	Val	Ala	Leu	Asp 255	Lys
Asn	Phe	His	Met 260	Lys	Cys	Tyr	Lys	Cys 265	Glu	Asp	Cys	Gly	Lys 270	Pro	Leu
Ser	Ile	Glu 275	Ala	Asp	Asp	Asn	Gly 280	Cys	Phe	Pro	Leu	Asp 285	Gly	His	Val
Leu	Cys 290	Arg	Lys	Cys	His	Thr 295	Ala	Arg	Ala	Gln	Thr 300				

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<213> Homo sapiens
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Thr Leu Gly Lys Gln Gln Thr Val Met Ala Ile Ala Thr Lys Ile Ala
             20
                                 25
Leu Gln Met Asn Cys Lys Met Gly Glu Leu Trp Arg Val Asp Ile
Pro Leu Lys Leu Val Met Ile Val Gly Ile Asp Cys Xaa His Asp Met
     50
                         55
Thr Ala Gly Arg Arg Ser Ile Ala Gly Phe Val Ala Ser Ile Asn Glu
Gly Met Thr Arg Trp Phe Ser Arg Cys Ile Phe Gln Asp Arg Gly Gln
                                     90
Glu Leu Val Asp Gly Leu Lys Val Cys Leu Gln Ala Ala Leu Arg Ala
                                105
Trp Asn Ser Cys Asn Glu Tyr Met Pro Ser Arg Ile Ile Val Tyr Arg
                            120
Val Ala
    130
<210> 686
<211> 207
<212> PRT
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<400> 686
Ile Tyr Gln Val Tyr Asn Ala Leu Gln Glu Lys Val Gln Ala Val Cys
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WO 00/55173 PCT/US00/05881

660

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Ala	Asp	Val	Glu 20	Lys	Ser	Glu	Arg	Val 25	Val	Glu	Ser	Cys	Gln 30	Ala	Glu
Val	Asn	Lys 35	Leu	Arg	Arg	Gln	Ile 40	Thr	Gln	Arg	Lys	Asn 45	Glu	Lys	Glu
Gln	Glu 50	Arg	Arg	Leu	Gln	Gln 55	Ala	Val	Leu	Ser	Arg 60	Gln	Met	Pro	Ser
Glu 65	Ser	Leu	Asp	Pro	Ala 70	Phe	Ser	Pro	Arg	Met 75	Pro	Ser	Ser	Gly	Phe 80
Ala	Ala	Glu	Xaa	Arg 85	Ser	Thr	Leu	Gly	Asp 90	Ala	Glu	Ala	Ser	Asp 95	Pro
Pro	Pro	Pro	Tyr 100	Ser	Asp	Phe	His	Pro 105	Asn	Asn	Gln	Glu	Ser 110	Thr	Leu
Ser	His	Ser 115	Arg	Met	Glu	Arg	Ser 120	Val	Phe	Met	Pro	Arg 125	Pro	Gln	Ala
Val.	Gly 130	Ser	Ser	Asn	Tyr	Ala 135	Ser	Thr	Ser	Ala	Gly 140	Leu	Lys	Tyr	Pro
Gly 145	Ser	Gly	Ala	Asp	Leu 150	Pro	Pro	Pro	Gln	Arg 155	Ala	Ala	Gly	Asp	Ser 160
Gly	Glu	Asp	Ser	Asp 165	Asp	Ser	Asp	Tyr	Glu 170	Asn	Leu	Ile	Asp	Pro 175	Thr
Glu	Pro	Ser	Asn 180	Ser	Glu	Tyr	Ser	His 185	Ser	Lys	Asp	Ser	Arg 190	Pro	Met
Ala	His	Pro 195	Asp	Glu	Asp	Pro	Arg 200	Asn	Thr	Gln	Thr	Ser 205	Gln	Ile	
	a. c.	. 7													
<210	0> 61	5/													

<211> 101

<212> PRT

<213> Homo sapiens

<400> 687

Ala Arg Ala Gly Glu Glu Gly Val Val Thr Arg Trp Arg His Arg Leu
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Gly Gln Gly Ala Cys Pro Trp Asp Arg Ser Arg Pro Met Glu Pro Pro 20 25 30

Gly Arg Ser Ser Arg Ser Thr Ala Ser His Thr Leu His Gln Tyr Cys 35 40 45

Cys Pro Thr Gln Val Leu Asp Ser Met Lys Leu Thr Pro Ser Gly Arg 50 60

Leu Ala Glu Ser Arg Glu Glu Glu Glu Glu Glu Glu Thr Glu Glu Glu 65 70 75 80

Glu Glu Glu Asp Ala His Gln Phe Cys Cys Pro Ala Ser Glu Cys Ser 85 90 95

Ser Pro Ser Ser Arg 100

<210> 688

<211> 62

<212> PRT

<213> Homo sapiens

<400> 688

Glu Arg Asn Ala Asp Pro Pro Asp Val Ser Leu Gly Lys Ala Val Asn
1 5 10 15

Gln Leu Ile Phe Ile Glu Asp Leu Leu Cys Pro Leu His Arg Val Ala 20 25 30

Ser Val Arg Glu Ser Trp Phe Phe Pro Arg Asn Thr Asp Phe Leu Ser 35 40 45

<210> 689

<211> 549

<212> PRT

<213> Homo sapiens

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<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (7)

- <223> Xaa equals any of the naturally occurring L-amino acids

   <400> 689

   Xaa Arg Trp Ala Cys Gly 1
   Xaa Leu Leu Leu Leu Val Arg Gly Gln Gly 15

   Gln Asp Ser Ala Ser Pro 20
   Pro 20
   Thr Thr His Thr Gly Gln Val Leu 30

   Gly Ser Leu Val His Val Lys Gly Ala Asn Ala Gly Val Gln Thr Phe 35
   Yaa Asn Ala Gly Pro Leu Arg Phe Ala 55

   Leu Gly Ile Pro Phe Ala Lys Pro Pro Leu Gly Pro Leu Arg Phe Ala 50
   Yaa Asn Ala 60

   Pro Pro Glu Pro Pro Glu Ser Trp Ser Gly Val Arg Asp Gly Thr Thr 80

   His Pro Ala Met Cys Leu Gln Asp Leu Thr Ala Val Glu Ser Glu Phe 95

   Leu Ser Gln Phe Asn Met Thr Phe Pro Ser Asp Ser Met Ser Glu Asp 110
- Asn Leu Pro Val Met Val Trp Ile His Gly Gly Ala Leu Val Phe Gly

Cys Leu Tyr Leu Ser Ile Tyr Thr Pro Ala His Ser His Glu Gly Ser

- 130 135 140
- Met Ala Ser Leu Tyr Asp Gly Ser Met Leu Ala Ala Leu Glu Asn Val 145 150 155 160
- Val Val Val Ile Ile Gln Tyr Arg Leu Gly Val Leu Gly Phe Phe Ser 165 170 175
- Thr Gly Asp Lys His Ala Thr Gly Asn Trp Gly Tyr Leu Asp Gln Val
- Ala Ala Leu Arg Trp Val Gln Gln Asn Ile Ala His Phe Gly Gly Asn 195 200 205
- Pro Asp Arg Val Thr Ile Phe Gly Glu Ser Ala Gly Gly Thr Ser Val 210 215 220
- Ser Ser Leu Val Val Ser Pro Ile Ser Gln Gly Leu Phe His Gly Ala 225 235 240
- Ile Met Glu Ser Gly Val Ala Leu Leu Pro Gly Leu Ile Ala Ser Ser 245 250 255

Ala	Asp	Val	1 11e		r Thi	, Val	. Val	265		Leu	Ser	Ala	Cys 270		Gln
Val	Asp	275		ı Alá	a Leu	val	. Gly 280		Leu	Arg	Gly	Lys 285		: Lys	Glu
Glu	Ile 290		ı Ala	a Ile	e Asn	Lys 295		Phe	Lys	Met	300	Pro	Gly	Val	Val
Asp 305	Gly	Val	. Phe	e Leu	310		His	Pro	Gln	Glu 315		Leu	Ala	Ser	Ala 320
Asp	Phe	Gln	. Pro	7 Val		Ser	Ile	· Val	Gly 330		Asn	Asn	Asn	Glu 335	Phe
Gly	Trp	Leu	11e 340		Lys	Val	Met	Arg 345	Ile	Tyr	Asp	Thr	Gln 350	_	Glu
		355			Ser		360					365			
	370				Thr	375					380				
385					Pro 390					395					400
				405					410					415	
			420		Pro			425					430		
		435			Ile		440					445			
	450				Val	455					460				
165					Glu 470					475					480
				485	Arg			•	490					495	
			500		Asp			505					510		
iln	Pro	Ala 515	Val	Gly	Arg <sub>.</sub>		Leu 520	Lys	Ala	His	Arg	Leu 525	Gln	Phe	Trp

Lys Lys Ala Leu Pro Gln Lys Ile Gln Glu Leu Glu Glu Pro Glu Glu 535 530

Arg His Thr Glu Leu 545

<210> 690

<211> 155

<212> PRT

<213> Homo sapiens

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<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<221> SITE

<222> (85)

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<400> 690

Ser His Arg Val Thr His Cys Pro Tyr Ala Val Ala Leu Pro Glu Val 10

Ala Pro Ala Gln Pro Leu Thr Glu Ala Leu Arg Ala Leu Cys His Val 20 25

Gly Leu Phe Xaa Phe Ala Phe Cys Ala Leu Phe Asp Cys Xaa Arg Pro 40

Val Xaa Gln Lys Ser Cys Asp Leu Leu Leu Phe Leu Arg Asp Lys Ile 55 50

Ala Ser Tyr Ser Ser Leu Arg Glu Ala Arg Gly Ser Pro Asn Thr Ala

Ser Ala Glu Ala Xaa Leu Pro Arg Trp Arg Ala Gly Glu Gln Ala Gln 90 85

Pro Pro Gly Asp Gln Glu Pro Glu Ala Val Leu Ala Met Leu Arg Ser 100 105 110

Leu Asp Leu Glu Gly Leu Arg Ser Thr Leu Ala Glu Ser Ser Asp His 115 120 125

Val Glu Lys Ser Pro Gln Ser Leu Leu Gln Asp Met Leu Ala Thr Gly 130 135 140

Gly Phe Leu Gln Gly Asp Glu Ala Asp Cys Tyr 145 150 155

<210> 691

<211> 149

<212> PRT

<213> Homo sapiens

<400> 691

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Glu Ala Trp Pro Gly Ser Leu Glu Gly Arg Gly Gly Gly Trp Arg His
20 25 30

Leu Asp Cys Pro Leu Leu Ser His Thr Trp Gly Val Val Thr Pro Phe 35 40 . 45

Thr Pro Ala Arg Leu Pro Ser Ala Phe His Glu Leu His Leu Leu Pro 50 55 60

Thr Ser Leu Trp Arg Gly Trp Gly Pro Leu Ala Ser Thr Arg Gly Pro 65 70 75 80

Ser Ala Ser Pro Lys Pro Glu Pro Ser Ala Pro Gly Glu Asn Lys Trp

Leu Ser Phe Asp Thr Trp Gly Arg Arg Glu Ala Ala Gly Trp Arg Gln 100 105 110

Ser Gln Gly Arg Asp Thr Thr Glu Gly Asp Pro Asp Ile Pro Arg Lys
115 120 125

Phe Pro Ala Glu Gln Thr Ala Phe Gln Pro Glu Ala Cys Leu Asn Cys 130 135 140

Val Met Cys Asn Asn

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<222						•								-	
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<400	> 69	2													
Pro	Gly	Val	Lys	Leu	Trp	Asp	Val	Pro	Val	Met	Leu	Asp	His	Lys	Asp
1	-		-	5	-	_			10					15	
Leu	G1u	Ala	Glu	Ile	His	Pro	Leu	Lys	Asn	Glu	Glu	Arg	Lys	Ser	Gln
			20					25					30		
Glu	Asn	Leu	Glv	Asn	Pro	Ser	Lvs	Asn	Glu	Asp	Asn	Val	Lys	Ser	Ala
		35	1				40			•		45	-		
Pro	Pro	Gln	Ser	Ara	Leu	Ser	Ara	Cvs	Arg	Ala	Ala	Ala	Phe	Phe	Leu
110	50			• 5		55	3	-1-			60				
Car	T.e.ii	Dhe	ī.en	Cvs	T.eu	Phe	Val	Val	Phe	Val	Val	Ser	Phe	Val	Ile
65	neu	FIIC	Deu	cys	70	1	• • • •			75					80
0.5					, ,										
D=0	C	Dro	7-0	D.c.	Dro	a 1 ء	Sar	Gln	Ara	Met	Tro	Ara	Tle	Asp	Tvr
PIO	cys	PIO	vəħ	85	FLO	AIG	BÇI	GIN	90					95	-1-
				63					,,,					, ,	
			T	T1-	m	7.00	Dho	T 011	712	Val	Aen	Δen	Tle	Δen	Glv
ser	Ala	Ala		116	TYL	АБР	rne	105	ALG	var	nsp	usb	110		011
			100					103							
_		-1.	<b>-</b> 1-		17. 1	T	nh-	T 0	m	Tue	Λcn	Thr	Aen	Sar	Sar
Asp	Arg		GIN	Asp	val	Leu		rea	тĂт	Lys	ASII	125	non	GGI	561
		115					120					123			
	_		_					•	<b>~1</b>	<u>د،</u>	Dh.o	Co-	602	Dro	C
Asn		Pne	ser	Arg	ser		vai	Asp	GIU	Gly	140	Ser	261	FIO	cys
	130					135					140				
			_ •					••-			22.	7	C	C1	V
	Phe	Ala	ALa	Ala		ser	GIY	AIA	ASn	Ala		ALG	ser	GTÅ	
145					150					155					160
										_		_	_	_	_
Asp	Leu	Trp	Pro			Trp	Pro	Ser		Ser	Val	Leu	Cys		
				165					170					175	
											_	_		_	
G1n	Glu	Ala	Val	Arg	His	Leu	Leu			Ser	Trp	Trp		Asp	Pro
			180					185					190		
												_	_		
Val	Leu	Ser	Leu	Gln	Ser	Thr			Gln	Gly	Lys			Lys	Pro
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  <211> 68
  <212> PRT
  <213> Homo sapiens
  <400> 693
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 Ser Gly Arg Ala Lys Ser Asp Leu Gly Lys Val Ile Arg Tyr Arg Leu
              20
                                  25
                                                       30
 Ser Ile Pro Phe Pro Lys Met Leu Gly Thr Arg Ser Ile Ser Asp Phe
 Ile Ile Phe Phe Lys Val Trp Asn Ile Cys Ile Ile Leu Thr Ser Trp
   . 50
                          55
· Ala Ser Gln Ile
  65
 <210> 694
 <211> 234
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 <213> Homo sapiens
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 <400> 694
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Cys Ala Xaa Xaa Leu Arg Gly Phe Asp Gln Gln Met Ser Ser Met Val

WO 00/55173 PCT/US00/05881

668

1				5					10					15	
Ile	Glu	His	Met 20	Ala	Ser	His	Gly	Thr 25	Arg	Phe	Leu	Arg	Gly 30	Суѕ	Ala
Pro	Ser	Arg 35	Val	Arg	Arg	Leu	Pro 40	Asp	Gly	Gln	Leu	Gln 45	Val	Thr	Trp
Glu	Asp 50	Ser	Thr	Thr	Gly	Lys 55	Glu	Asp	Thr	Gly	Thr 60	Phe	Asp	Thr	Val
Leu 65	Trp	Ala	Ile	Gly	Arg 70	Val	Pro	Asp	Thr	Arg 75	Ser	Leu	Asn	Leu	Glu 80
Lys	Ala	Gly	Val	Asp 85	Thr	Ser	Pro	Asp	Thr 90	Gln	Lys	Ile	Leu	Val 95	Asp
Ser	Arg	Glu	Ala 100	Thr	Ser	Val	Pro	His 105	Ile	туг	Ala	Ile	Gly 110	Asp	Val
Val	Glu	Gly 115	Arg	Pro	Glu	Leu	Thr 120	Pro	Thr	Ala	Ile	Met 125	Ala	Gly	Arg
Leu	Leu 130	Val	Gln	Arg	Leu	Phe 135	Gly	Gly	Ser	Ser	Asp 140	Leu	Met	Asp	Tyr
Asp 145	Asn	Val	Pro	Thr	Thr 150	Val	Phe	Thr	Pro	Leu 155	Glu	Tyr	Gly	Cys	Val 160
Gly	Leu	Ser	Glu	Glu 165	Glu	Ala	Val	Ala	Arg 170	His	Gly	Gln	Glu	His 175	Val
Glu	Val	туг	His 180	Ala	His	Туг	Lys	Pro 185	Leu	Glu	Phe	Thr	Val 190	Ala	Gly
Arg	Asp	Ala 195	Ser	Gln	Cys	туг	Val 200	Lys	Met	Val	Cys	Leu 205	Arg	Glu	Pro
Pro	Gln 210	Leu	Val	Leu	Gly	Leu 215	His	Phe	Leu	Xaa	Pro 220	Thr	Gln	Ala	Asn
Tyr 225	Ser	Arg	Ile	Cys	Ser 230	Gly	Asp	Lys	Cys						

<210> 695

<211> 460

<212> PRT

<213> Homo sapiens

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	Val	. Ala	35		Glu	į Pro	Val	. Ala 40		, Leu	Leu	Trp	Ala 45	Gly	Thr	Leu
	Lys	11e	Ala	Ala	Met	. Ala	Glu 55		Gly	Asp	Asn	Glu 60		Met	Ala	Ala
	Leu 65	Glu	Ala	Lys	Ile	Cys 70		Gln	Ile	Glu	Ту <u>г</u> 75		Phe	Gly	Asp	Phe 80
	Asn	Leu	Pro	Arg	Asp 85		Phe	Leu	Lys	Glu 90		Ile	Lys	Leu	Asp 95	Glu
	Gly	Trp	Val	Pro 100		Glu	Ile	Met	Ile 105	Lys	Phe	Asn	Arg	Leu 110	Asn	Arg
	Leu	Thr	Thr 115		Phe	Asn	Val	Ile 120	Val	Glu	Ala	Leu	Ser 125	Lys	Ser	Lys
	Ala	Glu 130		Met	Glu	Ile	Ser 135	Glu	Asp	Lys	Thr	Lys 140	Ile	Arg	Arg	Ser
	Pro 145	Ser	Lys	Pro	Leu	Pro 150	Glu	Val	Thr	Asp	Glu 155	Tyr	Lys	Asn	Asp	Val 160
	Lys	Asn	Arg	Ser	Val 165	Tyr	Ile	Lys	Gly	Phe 170	Pro	Thr	Asp	Ala	Thr 175	Leu
	Asp	Asp	Ile	Lys 180	Glu	Trp	Leu	Glu	Asp 185	Lys	Gly	Gln	Val	Leu 190	Asn	Ile
•	Gln	Met	Arg 195	Arg	Thr	Leu	His	Lys 200	Ala	Phe	Lys	Gly	Ser 205	Ile	Phe	Val
•	Val	Phe 210	Asp	Ser	Ile		Ser 215		Lys	Lys	Phe	Val 220	Glu	Thr	Pro	Gly
:	31n 225	Lys	Tyr	Lys	Glu	Thr 230	Asp	Leu	Leu	Ile	Leu 235	Phe	Lys	Asp	Asp	Туг 240
I	Phe	Ala	Lys	Lys	Asn 245	Glu	Glu	Arg	Lys	Gln 250	Asn	Lys	Val	Glu	Ala 255	Lys
I	Leu	Arg	Ala	Lys 260	Gln	Glu	Gln		Ala 265	Lys	Gln	Lys	Leu	Glu 270	Glu	Asp

Ala	Glu	Met 275	Lys	Ser	Leu	Glu	Glu 280	Lys	Ile	Gly	Cys	Leu 285	Leu	Lys	Phe
Ser	Gly 290	Asp	Leu	Asp	Asp	Gln 295	Thr	Cys	Arg	Glu	Asp 300	Leu	His	Ile	Leu
Phe 305	Ser	Asn	His	Gly	Glu 310	Ile	Lys	Trp	Ile	Asp 315	Phe	Val	Arg	Gly	Ala 320
Lys	Glu	Gly	Ile	11e 325	Leu	Phe	Lys	Glu	Lys 330	Ala	Lys	Glu	Ala	Leu 335	Gly
Lys	Ala	Lys	Asp 340	Ala	Asn	Asn	Gly	Asn 345	Leu	Gln	Leu	Arg	Asn 350	Lys	Glu
Val	Thr	Trp 355	Glu	Val	Leu	Glu	Gly 360	Glu	Val	Glu	Lys	Glu 365	Ala	Leu	Lys
Lys	Ile 370	Ile	Glu	Asp	Gln	Gln 375	Glu	Ser	Leu	Asn	Lys 380	Trp	Lys	Ser	Lys
Gly 385	Arg	Arg	Phe	Lys	Gly 390	Lys	Gly	Lys	Gly	Asn 395	Lys	Ala	Ala	Gln	Pro 400
Gly	Ser	Gly	Lys	Gly 405	Lys	Val	Gln	Phe	Gln 410	Gly	Lys	Lys	Thr	Lys 415	Ph€
Ala	Ser	Asp	Asp 420	Glu	His	Asp	Glu	His 425	Asp	Glu	Asn	Gly	Ala 430	Thr	Gly
Pro	Val	Lys 435	Arg	Ala	Arg	Glu	Glu 440	Thr	Asp	Lys	Glu	Glu 445	Pro	Ala	Ser
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<210> 696

<211> 80

<212> PRT

<213> Homo sapiens

<400> 696

Gly Glu Glu Gly Val Gly Ser Pro Ser Gly Ile Leu Ala Thr Pro Leu 1 5 10 15

Arg Ser Ala Arg Gly Thr Thr His Thr His Thr His Thr His Thr His 20 25 30

Thr His Ser His Thr His Ala His Phe Pro Ser Phe Pro Asp Pro Leu 35 40 45

Phe Gln Ser Ser Pro Phe Ser Ser Gly Phe Ile Asp Glu Tyr Lys Tyr 50 55 60

Pro His Leu Trp Pro Val Met Ser Val Thr Cys Cys Arg Phe Cys Val 65 70 75 80

<210> 697

<211> 257

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 697

Trp Pro Arg Arg Pro Gly Pro His Leu Gly Val Leu Glu Phe Pro Gly
1 5 10 15

Ala Gly Cys Gly Ala Ser Ala Ala Gly Trp Pro Ser Ala Xaa Met Leu 20 25 30

Pro Gly Arg Gly Pro Arg Pro Phe Arg Ala Arg Leu Val Gly Arg Glu 35 40 45

Leu Val Ser Met Leu Ala Arg Glu Leu Pro Ala Ala Val Ala Pro Ala 50 55 60

Gly Pro Ala Ser Leu Ala Arg Trp Thr Leu Gly Phe Cys Asp Glu Arg
65 70 75 80

Leu Val Pro Phe Asp His Ala Glu Ser Thr Tyr Gly Leu Tyr Arg Thr

His Leu Leu Ser Arg Leu Pro Ile Pro Glu Ser Gln Val Ile Thr Ile 100 105 110

Asn Pro Glu Leu Pro Val Glu Glu Ala Ala Glu Asp Tyr Ala Lys Lys 115 120 125

Leu Arg Gln Ala Phe Gln Gly Asp Ser Ile Pro Val Phe Asp Leu Leu 130 135 . 140 WO 00/55173 PCT/US00/05881

672

 Ile
 Leu
 Gly
 Val
 Gly
 Pro
 Asp
 Gly
 His
 Thr
 Cys
 Ser
 Leu
 Phe
 Pro
 Asp
 160

 His
 Pro
 Leu
 Gln
 Glu
 Arg
 Glu
 Lys
 Ile
 Val
 Ala
 Pro
 Ile
 Ser
 Asp
 Asp
 Intraction
 Intraction

Glu Ala Ala Ala Arg Leu Leu Thr Val Pro Phe Glu Lys His Ser Thr
245 250 255

Ala Ala Leu Val Gln Pro His Thr Gly Lys Leu Cys Trp Phe Leu Asp

235

230

T.eu

<210> 698

<211> 68

<212> PRT

<213> Homo sapiens

<400> 698

Gln Tyr Lys Thr Pro Ala Val Asp Thr Thr Met Met Thr Phe His Glu

1 5 10 15

Leu Val Phe Leu Val Leu Thr Ala Lys Phe Val Leu Phe Thr Gly Gln 20 25 30

Ile Ser Asn Lys Val Leu Gly Leu Lys Ile His Gly Trp Thr Glu Val

Pro Tyr Pro Leu Thr Met Glu Ala Gly Ala Thr Phe Trp Gly Tyr Leu 50 55 60

Phe Leu Asn Phe

<2	11>	360													
<2	12>	PRT													
			sap	ions											
~~.		nomo	sap.	rens											
	00>														
Pro	Cy:	s Se	r Ala	Thi	Thr	Ala	Trp	Va]	Lys	s Ser	Ser	Ile	Lvs	Thr	His
	Ł			9			-		10				-1-		
									4.	,				15	'
*				_	_										
Let	ı cy:	S AL			ı Arç	HIS	Ile	: Arg	Phe	Leu	. Leu	Ser	· Val	. Cys	Leu
			20	)				25	•				30	1	
Leu	Cvs	Lei	ı Val	Ala	เลา	Thr	. Ala	Va 1	A1-	. Ual	T	Mon			Thr
	2 -	35			,	2			. Ald	ı vaı	гуз			ser	Thr
		٠.	,				40	'				45			
Ser	Arç	Let	ı Asp	Ala	Leu	Pro	Arg	Val	Thr	Cys	Pro	Asn	His	Pro	Asp
	50	)				55				-	60				
A1-	T16	. T		<b>~</b> 1	•	_									
MIG	. 116	: Let	ı vaı	GIU	Asp	Tyr	Arg	Ala	Gly	Asp	Met	Ile	Cys	Pro	Glu
65	,				70					75					80
Cys	Gly	Leu	ı Val	Va 1	Glv	Asn	Ara	Val	Tla	Acn	17-1	c1	C	<b>~1</b>	Trp
•	•			85			9	vui			Val	GIY	ser		Trp
				0.3					. 90					95	
Arg	Thr	Phe	Ser	Asn	Asp	Lys	Ala	Thr	Lys	Asp	Pro	Ser	Arg	Val	Gly
			100					105		_	•		110		2
3.00		- C1 -			_	_	_		_						
ASP	ser	GIN	Asn	Pro	Leu	Leu	Ser	Asp	Gly	Asp	Leu	Ser	Thr	Met	Ile
		115					120					125			
Gly	Lvs	Glv	Thr	Glv	Ala	Ala	Ser	Phe	Δen	Glu	Dha	G1 **	7.00		Lys
-	130			1			DUI	1 110	nsp	GIU		GLY	ASI	ser	гÀг
	130					135					140				
Tyr	Gln	Asn	Arg	Arg	Thr	Met	Ser	Ser	Ser	Asp	Arg	Ala	Met	Met	Asn
145					150					155	_				
										133					160
ALA	Pne	Lys	GIU	He	Thr	Thr	Met	Ala	Asp	Arg	Ile	Asn	Leu	Pro	Arg
				165			•		170					175	
Asn	Tle	Val	Asn	Ara	Thr	Acn	Asn	T 0	Dho	*	<b>61</b> -	1	_		
			100	n. y	1111	ASII	ASII		Pile	Lys	GIN	vaı	Tyr	Glu	Gln
			180					185					190		
Lys	Ser	Leu	Lys	Gly	Arq	Ala	Asn	Asp	Ala	Ile	Ala	Ser	ala	Cve	T 011
		195	_	-	•		200							Cys	neu
							200					205			
Tyr	Ile	Ala	Cys	Arg	Gln	Glu	Gly	Val	Pro	Arg	Thr	Phe	Lys	Glu	Ile
	210					215	-			-	220		•		
C~	a 1 -	120 1	C	B	<b>-1</b>	_	_	_							
Cys	wrg	val	ser	Arg		ser	Lys	Lys	Glu	Ile	Gly	Arg	Cys	Phe	Lys
225					230					235					240
Leu	Ile	Len	Lvs	Ala	Len	Glu	ጥb <del>r</del>	Sar	1/2 l	Acr	Ton	TIC	Mb	mb	Gly
			-1-				T 111	JCI	*ar	vah	₩CU	TTE	THE	Inr	GIV

255 245 250 Asp Phe Met Ser Arg Phe Cys Ser Asn Leu Cys Leu Pro Lys Gln Val 265 260 Gln Met Ala Ala Thr His Ile Ala Arg Lys Ala Val Glu Leu Asp Leu 280 275 Val Pro Gly Arg Ser Pro Ile Ser Val Ala Ala Ala Ala Ile Tyr Met 295 Ala Ser Gln Ala Ser Ala Glu Lys Arg Thr Gln Lys Glu Ile Gly Asp 310 315 Ile Ala Gly Val Ala Asp Val Thr Ile Arg Gln Ser Tyr Arg Leu Ile 330 325 Tyr Pro Arg Ala Pro Asp Leu Phe Pro Thr Asp Phe Lys Phe Asp Thr 345 340 Pro Val Asp Lys Leu Pro Gln Leu 355 <210> 700 <211> 364

<212> PRT

<213> Homo sapiens

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<220>

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<400> 700

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Glu	Gly	Ala 35	Arg	Val	Phe	Gly	Ala 40		Gly	Pro	Ile	Gly 45		Ser	Ser
	50	l	Thr			55					60				
65			Leu		70					75					80
			Ser	85			٠		90					95	-
			Val 100					105					110		
		115	Ile				120					125			
	130		Phe			135					140				
145			Asp		150					155					160
			Cys	165					170					175	-
			Leu 180					185					190		
		195	Asp				200					205			
	210		Lys			215					220				
225			Val		230			•		235					240
				245					250					255	
ro	ser	HIS	Val 260	Tyr	Val .	Asn		Gly 265	Glu	Ile	Leu	Arg	Thr 270	Glu	Gln

<210> 701 <211> 156 <212> PRT

<213> Homo sapiens

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<400> 701

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Xaa Val Met Leu Glu Gly Gln Gly Arg Leu Glu Arg Val His Ile Pro 35 40 45

Leu Ser Ala Pro Ala Ser Ala Thr Val Gln Arg Pro Thr Gly Pro Gln 50 55 60

Pro Val Ala Cys Pro His Cys Pro Val Pro Thr Ser Asn Ser Pro Gln 65 70 75 80

Pro Leu Val Ala Ser Val Pro Cys Pro Leu Gly Phe Ser Ser Gln Pro 85 90 95

Ser Gly Leu Gly Leu Cys Arg Lys Val Met Pro Thr Gly Thr Leu Leu 100 105 110

Thr Pro Gly Ser Phe Met Asp Val Val Ser Glu Leu Arg Thr Arg Gly 115 120 125

Cys Gln Met Phe Leu Ala Pro His Val Ser Phe Arg Thr Glu Gln Lys 130 135 140

His Lys Asp Ser Ala Lys Ser Ser Leu Tyr Ser Leu 145 150 155

<210> 702

<211> 150

<212> PRT

<213> Homo sapiens

<400> 702

Ala Gly His Gly Leu Gly Val Arg Ala Gly Leu Lys Glu Phe Ala Thr  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Asn Leu Thr Glu Ser Gly Val His Gly Ala Leu Leu Ala Leu Asp Glu 20 25 30

Thr Phe Asp Tyr Ser Asp Leu Ala Leu Leu Leu Gln Ile Pro Thr Gln
35 40 45

Asn Ala Gln Ala Arg Gln Leu Leu Glu Lys Glu Phe Ser Asn Leu Ile 50 55 60

Ser Leu Gly Thr Asp Arg Arg Leu Asp Glu Asp Ser Ala Lys Ser Phe 65 70 75 80

Ser Arg Ser Pro Ser Trp Arg Lys Met Phe Arg Glu Lys Asp Leu Arg 85 90 95

Gly Val Thr Pro Asp Ser Ala Glu Met Leu Pro Pro Asn Phe Arg Ser

Ala Ala Ala Gly Ala Leu Gly Ser Pro Gly Leu Pro Leu Arg Lys Leu 115 120 125

Gln Pro Glu Gly Gln Thr Ser Gly Ser Ser Arg Ala Asp Gly Val Ser 130 135 140

Val Arg Thr Tyr Ser Cys

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<211> 527
<212> PRT
<213> Homo sapiens
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<222> (477)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<220>
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<222> (519)
<223> Xaa equals any of the naturally occurring L-amino acids
Cys Val Cys Val Glu Gly Val Glu Gly Pro Arg Cys Asp Lys Cys Thr
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1				5	•				10	)				15	5	
Arg	Gly	, Tyr	Ser 20		Val	Phe	Pro	Asp 25		Thr	Pro	Cys	His 30		Cys	
Phe	Ala	Leu 35		Asp	Val	Ile	11e		Glu	Leu	Thr	Asn 45		The	His	
Arg	Phe 50		ı Glu	Lys	Ala	Lys 55		Leu	Lys	Ile	Ser 60	-	Val	Ile	Gly	
Pro 65	Tyr	Arg	, Glu	Thr	Val 70		Ser	Val	Glu	Arg 75		Val	Ser	Glu	Ile 80	
Lys	Asp	Ile	. Leu	Ala 85		Ser	Pro	Ala	Ala 90		Pro	Leu	Lys	Asn 95	Ile	
Gly	Asn	Leu	Phe 100		Glu	Ala	Glu	Lys 105	Leu	Ile	Lys	Asp	Val 110		Glu	
Met	Met	Ala 115		Val	Glu	Val	Lys 120		Ser	Asp	Thr	Thr 125	Ser	Gln	Ser	
Asn	Ser 130		Ala	Lys	Glu	Leu 135	Asp	Ser	Leu	Gln	Thr 140	Glu	Ala	Glu	Ser	
Leu 145	Asp	Asn	Thr	Val	Lys 150	Glu	Leu	Ala	Glu	Gln 155	Leu	Glu	Phe	Ile	Lys 160	
Asn	Ser	Asp	Ile	Arg 165	Gly	Ala	Leu	Asp	Ser 170	Ile	Thr	Lys	Tyr	Phe 175		
Met	Ser	Leu	Glu 180	Ala <sub>.</sub>	Glu	Glu	Arg	Va1 185	Asn	Ala	Ser	Thr	Thr 190	Glu	Pro	
Asn	Ser	Thr 195	Val	Glu	Gln	Ser	Ala 200	Leu	Met	Arg	Asp	Arg 205	Val	Glu	Asp	
Val	Met 210	Met	Glu	Arg	Glu	Ser 215	Gln	Phe	Lys	Glu	Lys 220	Gln	Glu	Glu	Gln	
Ala 225	Arg	Leu	Leu	Asp	Glu 230	Leu	Ala	Gly	Lys	Leu 235	Gln	Ser	Leu	Asp	Leu 240	
Ser	Ala	Xaa	Ala	Glu 245	Met	Thr	Cys	Gly	Thr 250	Pro	Pro	Gly	Ala	Ser 255	Cys	
(aa	Glu	Xaa	Glu 260	Cys	Gly	Gly	Pro	Asn 265	Cys	Arg	Thr	Asp	Glu 270	Gly	Glu	
ırg	Lys	Cys	Gly	Gly	Pro	Gly	Cys	Gly	Gly	Leu	Val	Thr	Val	Ala	His	

680

		275					280					285			
Asn	Ala 290	Trp	Gln	Lys	Ala	Met 295	Asp	Leu	Asp	Gln	Asp 300	Val	Leu	Ser	Ala
Leu 305	Ala	Glu	Val	Glu	Gln 310	Leu	Ser	Lys	Met	Val 315	Ser	Glu	Ala	Lys	Le:
Arg	Ala	Asp	Glu	Ala 325	Lys	Gln	Ser	Ala	Glu 330	Asp	Ile	Leu	Leu	Lys 335	Thi
Asn	Ala	Thr	Lys 340	Glu	Lys	Met	Asp	Lys 345	Ser	Asn	Glu	Glu	Leu 350	Arg	Ası
Leu	Ile	Lys 355	Gln	Ile	Arg	Asn	Phe 360	Leu	Thr	Gln	Asp	Ser 365	Ala	Asp	Let
Asp	ser 370	Ile	Glu	Ala	Val	Ala 375	Asn	Glu	Val	Leu	Lys 380	Met	Glu	Met	Pro
Ser 385	Thr	Pro	Gln	Gln	Leu 390	Gln	Asn	Leu	Thr	Glu 395	Asp	Ile	Arg	Glu	Arc 400
Val	Glu	Ser	Leu	Ser 405	Gln	Val	Glu	Val	11e 410	Leu	Gln	His	Ser	Ala 415	Ala
Asp	Ile	Ala	Arg 420	Ala	Glu	Met	Leu	Leu 425	Glu	Glu	Ala	Lys	Arg 430	Ala	Ser
Lys	Ser	Ala 435	Thr	Asp	Val	Lys	Val 440	Thr	Ala	Asp	Met	Val 445	Lys	Glu	Ala
Leu	Glu 450	Glu	Ala	Glu	Lys	Ala 455	Gln	Val	Ala	Ala	Glu 460	Lys	Ala	Ile	Lys
Gln 465	Ala	Asp	G1u	Asp	11e 470	Xaa	Arg	Asn	Pro	Glu 475	Pro	Xaa	Asn	Phe	Xaa 480
Leu	Glu	Phe	Xaa	Lys 485	Gln	Gln	Leu	Ser	Gly 490	Gly	Asn	Leu	Val	Gln 495	Arç
Val	Pro	Arg	Ala 500	Ser	Ser	Glu	Phe	Arg 505	Glu	Asp	Val	Gly	Arg 510	Xaa	Leu
Ser	Gly	Lys 515	Leu	Ala	Gln	Xaa	Pro 520	Gly	Gly	Gly	Arg	Ile 525	Phe	Trp	

<210> 704

<211> 62

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<212> PRT
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<213> Homo sapiens

<400> 704

Val Tyr Gln Arg Lys Ser Thr Val Val Leu Gly Gly Phe Leu Leu Trp
1 5 10 15

Asp Ile Asp Phe Leu Phe Phe Phe Arg Asn Ile Val Cys Cys Asn Leu 20 25 30

Asn Lys Asn Tyr Asp Ile Leu Arg Tyr Phe Ile Asp Lys Pro Asn Lys
35 40 45

Asn Ile Cys Phe Tyr Phe Lys Val Asn Val Phe Leu Phe Ser 50 60

<210> 705

<211> 44

<212> PRT

<213> Homo sapiens

<400> 705

Thr Glu Asp Leu Phe Gly Phe Lys His Leu Leu Arg Gln Tyr Leu Leu 1 5 10 15

Gly Lys Pro Asn Ile Ala Asn Gly Gln Phe Asp Phe Asn Phe Ser Lys
20 25 30

Asp Thr Leu Leu Ser Arg Arg Leu Lys Cys Leu His

<210> 706

<211> 193

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 706

Xaa Gly Arg Ala Trp Val Met Ala Ala Pro Gly Ala Leu Leu Val Met
1 5 10 15

Gly Val Ser Gly Ser Gly Lys Ser Thr Val Gly Ala Leu Leu Ala Ser

Glu Leu Gly Trp Lys Phe Tyr Asp Ala Asp Asp Tyr His Pro Glu Glu
35 40 45

Asn Arg Arg Lys Met Gly Lys Gly Ile Pro Leu Asn Asp Gln Asp Arg
50 55 60

Ile Pro Trp Leu Cys Asn Leu His Asp Ile Leu Leu Arg Asp Val Ala 65 70 75 80

Ser Gly Gln Arg Val Val Leu Ala Cys Ser Ala Leu Lys Lys Thr Tyr 85 90 . 95

Arg Asp Ile Leu Thr Gln Gly Lys Asp Gly Val Ala Leu Lys Cys Glu
100 105 110

Glu Ser Gly Lys Glu Ala Lys Gln Ala Glu Met Gln Leu Leu Val Val
115 120 125

His Leu Ser Gly Ser Phe Glu Val Ile Ser Gly Arg Leu Leu Lys Arg 130 135 140

Glu Gly His Phe Met Pro Pro Glu Leu Leu Gln Ser Gln Phe Glu Thr 145 150 . 155 160

Leu Glu Pro Pro Ala Ala Pro Glu Asn Phe Ile Gln Ile Ser Val Asp 165 170 175

Lys Asn Val Ser Glu Ile Ile Ala Thr Ile Met Glu Thr Leu Lys Met 180 185 190

Lys

<210> 707

<211> 121

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<40	0> 76	07													
Gly l	Ile	Arg	Gly	Gln 5	Thr	Leu	Trp	Leu	Gly 10	Pro	Leu	Gly	Ala	Thr 15	Le
Тгр	Pro	Leu	Gly 20	Ala	Leu	Glu	Thr	Ser 25	His	Val	Leu	Trp	Ala 30	Leu	Tr
Arg	Ala	Leu 35	Ala	Leu	His	Gly	Gly 40	Ala	Gly	Arg	His	Cys 45	Leu	Pro	Cy:
Pro	Leu 50	Pro	Ala	Ala	Pro	Ala 55	Leu	Val	Cys	Arg	Leu 60	Gly	Pro	Gly	Суя
Leu 65	Leu	Leu	Gly	Val	Trp 70	Pro	Arg	Ala	Pro	Val 75	Lys	Pro	Trp	Arg	Hi:
Cys	Val	Cys	Val	Met 85	Gly	Ser	Glu	Gly	Leu 90	Val	Gly	Ala	Val	His 95	Tr
Ser	Ser	Ser	Leu 100	Pro	Xaa	Xaa	Ala	Ile 105	Ser	Met	Ala	Pro	Phe 110	Ala	Ala
Glu	Asp	Thr 115	His	Cys	Gly	Ser	Val	Gly							

<210> 708 <211> 112 <212> PRT <213> Homo sapiens

<400> 708

Asn Ser Phe Cys Tyr Phe His Ile Arg Val Gln Thr Tyr Lys Gly Ala 1 5 10 15

Cys Ser Leu Lys Val His Asn Tyr Ser Tyr Ser Val Cys Leu Tyr Cys

Tyr Arg Met Leu Cys Phe Gly Ala Leu Ser Ser Ala Asp Pro Arg Ser 35 40 45

Ser Val Glu Ile His Cys Leu Gly His Ser Leu Ile Arg Met Leu Ala 50 55 60

Gly Asp Phe Val Ser Asp Val Ala Ser Leu Phe Ser Val His Arg Leu 65 70 75 80

Arg Val Thr Thr Val Ala Cys Arg Val His Pro Val Gly Ala Ala Gln
85 90 95

684

Leu Ser Glu Ser Lys Asn Leu Pro Thr Tyr Ser Asn Val Phe Ala Leu 100 105 110

<210> 709

<211> 72

<212> PRT

<213> Homo sapiens

<400> 709

Arg Arg Val Trp Val Leu Phe Pro Pro Gln Arg Pro Glu Ser Gly Trp 1 5 10 15

Gly Val Ser Pro Val Glu Gly Glu Thr Val Pro Ala Leu Arg Gly Met 20 25 30

Lys Lys Ser Val Gly Leu Pro Val Ala Val Gln Cys Val Ala Leu Pro 35 40 45

Trp Gln Glu Glu Leu Cys Leu Arg Phe Met Arg Glu Val Glu Arg Leu 50 55 60

Met Thr Pro Glu Lys Gln Ser Ser

<210> 710

<211> 84

<212> PRT

<213> Homo sapiens

<400> 710

Arg Leu His Arg Tyr Pro Glu Ala Met Ala Ser Lys Gly Leu Gln Asp 1 5 10 15

Leu Lys Gln Gln Val Glu Gly Thr Ala Gln Glu Ala Val Ser Ala Ala 20 25 30

Gly Ala Ala Ala Gln Gln Val Val Asp Gln Ala Thr Glu Ala Gly Gln 35 40 45

Lys Ala Met Asp Gln Leu Ala Lys Thr Thr Gln Glu Thr Ile Asp Lys 50 60

Thr Ala Asn Gln Ala Ser Asp Thr Phe Ser Gly Ile Gly Lys Lys Phe
65 70 75 80

Gly Leu Leu Lys

<210> 711

<211> 63

<212> PRT

<213> Homo sapiens

<400> 711

Arg Leu His Arg Tyr Pro Glu Ala Met Ala Ser Lys Gly Leu Gln Asp
1 5 10 15

Leu Lys Gln Gln Val Glu Gly Thr Ala Gln Glu Ala Ala Met Asp Gln
20 25 30

Leu Ala Lys Thr Thr Gln Glu Thr Ile Asp Lys Thr Ala Asn Gln Ala 35 40 45

Ser Asp Thr Phe Ser Gly Ile Gly Lys Lys Phe Gly Leu Leu Lys 50 55 60

<210> 712

<211> 86

<212> PRT

<213> Homo sapiens

<400> 712

Arg Leu Ala Asn Arg Ala Ile Met Ser His Lys Gln Ile Tyr Tyr Ser 1 5 10 15

Asp Lys Tyr Asp Asp Glu Glu Phe Glu Tyr Arg His Val Met Leu Pro 20 25 30

Lys Asp Ile Ala Lys Leu Val Pro Lys Thr His Leu Met Ser Glu Ser 35 40 45

Glu Trp Arg Asn Leu Gly Val Gln Gln Ser Gln Gly Trp Val His Tyr 50 55 60

Met Ile His Glu Pro Glu Pro His Ile Leu Leu Phe Arg Arg Pro Leu 65 70 75 80

Pro Lys Lys Pro Lys Lys

<210	)> 71	L <b>3</b>													
<211	> 19	3													
<212	?> PF	TS													
<213	3> Ho	omo s	sapie	ens											
<220	)>														
<221	l> S1	TE													
<222	?> (1	(29)													
<223	3> Xa	a ec	quals	any	of	the	natu	rall	Ly oc	curi	ing	L-an	nino	acid	is
			-	_					_						
<400	> 71	13													
Val	Gln	Lys	Ala	Gly	Ala	Arg	Ala	Leu	Ala	Val	Ala	Gly	Ala	Ala	Arg
1		_		5					10					15	
Thr	Pro	Arg	Ser	Leu	Pro	Gly	Arg	Pro	Ala	Val	Cys	Asn	Met	Thr	Leu
			20					25					30		
Glu	Glu	Phe	Ser	Ala	Gly	Glu	Gln	Lys	Thr	Glu	Arg	Met	Asp	Lys	Val
		35					40					45			
Gly	Asp	Ala	Leu	Glu	Glu	Val	Leu	Ser	Lys	Ala	Leu	Ser	Gln	Arg	Thr
	50					55					60				
Ile	Thr	Val	Gly	Val	Tyr	Glu	Ala	Ala	Lys	Leu	Leu	Asn	Val	Asp	Pro
65					70					75					80
Asp	Asn	Val	Val	Leu	Cys	Leu	Leu	Ala	Ala	Asp	Glu	Asp	Asp	Asp	Arg
				85					90					95	
Asp	Val	Ala	Leu	Gln	Ile	His	Phe	Thr	Leu	Ile	Gln	Ala		Cys	Cys
			100					105					110		
			_											_	
Glu	Asn	-	Ile	Asn	Ile	Leu	-	Val	Thr	Thr	Arg		GLY	Trp	Arg
		115					120					125			
	_		_		_		_		_		~~	-1	•	<b>~</b> 1	
Xaa		Ala	Leu	GIA	Asp	-	Arg	Trp	Pro	Arg	_	GIU	Arg	GIY	Arg
	130					135					140				
_			_	-1	_		<b>.</b>		••••	••- 1	mh		D		0
	Ala	АТА	Pro	GIY		АТА	Leu	Arg	vaı		Thr	Asn	PIO	HIS	
145					150					155					160
	<b>~</b> ?	m	<b>.</b> .	•	<b>D.</b>		<b>.</b>	<b>.</b>	a1-	T	T1 -	O	nh-	0	<b>3</b>
ser	GIN	Trp	Lys		Pro	ALA	Leu	ser		Leu	тте	cys	rue		Arg
				165					170					175	
<b>01</b>		3 m.c.	m	Mat.	3	C1 -	m	1103	D=c	** 1	T10	705	T 011	Dwc	C1.:
GIU	ser	Arg	Tyr	rec	Asp	GTU	тър		PIO	val	116	ASII	190	PLO	GIU
			180					185					TAG		

Arg

<21	0>	714													
	1>														
	.2>					•									
<21	.3>	Homo	sap.	iens											
<22	:0>														
<22	1>	SITE													
<22	2>	(90)							•						
<22	3>	Xaa e	equa]	ls ar	ny of	E the	e nat	ural	lly o	occui	ring	L-a	mino	aci	ds
											-				
<22															
		SITE (93)													
			egna l	ls ar	w of	: +ha		1	1				<b></b>		_
	•		-4441		ıy Oı	. cne	: nat	.urai	ту с	occur	ring	L-a	mıno	acı	ds
<22	0>														
<22	1> 5	SITE													
		(190)													
<22	3> )	⟨aa ∈	equal	s an	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	ds
-40	n> -	714				-									
	0> 7		. 115	C		- Cl.					_	·	_		
1	FIC	, GIA	Ald	Cys 5		GIÀ	Pro	н Ата			Pro	Arg	Arg		Glr
•				د					10	,				15	
Ser	Va1	Lys	Cys	Glu	Pro	Ara	Ara	Ara	Glv	Ara	Tle	ጥኮቦ	Pro	Glv	A 1 -
		-	20					25		•••			30	GLY	VIC
Gly	Gly	Gly	Val	Gly	Ala	Ala	Arg	His	Val	His	His	His	Gln	Gly	Ala
		35					40					45		_	
<b>01</b> -	۵,														
GIN	50	Ala	GLY	Arg	Ala		Pro	His	Arg	Ser		Ala	Ala	Ala	Gly
	30					55					60				
Glv	Glv	Pro	Ala	Arg	Ara	Αla	Pro	Glu	Mat	Dro			<b>3</b>		
65	2				70		110	GIU	HEC	75	MIG	AId	Arg	AIA	80 80
										,,,					80
Asp	Leu	Ala	Ala	Pro	Ala	Gly	Ala	Ala	Xaa	Cys	Ala	Xaa	Pro	Glv	Pro
				85					90	-				95	
rp	Pro	Leu	Ser	Ser	Pro	Gly	Pro	Arg	Leu	Val	Phe	Asn	Arg	Val	Asn
			100					105					110		
*1		•		_	_		_								
31Y	Arg	Arg	Ala	Pro	Ser	Thr		Pro	Ser	Phe	Glu		Thr	Gln	Glu
		115					120					125			
hr	Tyr	Thr	Val	Ala	Hic	Glu	GI ··	Aco	Val	A ===	Dh a	17-3	C	<b>~</b> 1	
-	130					135	-1u	non	Val	vrA	140	AGI	ser	GIU.	ALA
											140				
, r.n	Gla	G) n	V = 1	C1 n	C1-	C1-	*		۵,		_				

688

145 150 155 160

Gly Pro Arg Pro Val Gln Tyr Val Glu Arg Thr Pro Asn Pro Arg Leu 165 170 175

Gln Asn Phe Val Pro Ile Asp Leu Asp Glu Trp Trp Ala Xaa Gln Phe 180 185 190

Leu Ala Arg Ile Thr Ser Cys Ser 195 200

<210> 715

<211> 106

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 715

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Leu Val Pro Xaa Leu 1 5 10 15

Trp Ser Arg Glu Glu Ala Met Ala Thr Met Glu Asn Lys Val Ile Cys
20 25 30

Ala Leu Val Leu Val Ser Met Leu Ala Leu Gly Thr Leu Ala Glu Ala 35 40 45

Gln Thr Glu Thr Cys Thr Val Ala Pro Arg Glu Arg Gln Asn Cys Gly

Phe Pro Gly Val Thr Pro Ser Gln Cys Ala Asn Lys Gly Cys Cys Phe 65 70 75 80

Asp Asp Thr Val Arg Gly Val Pro Trp Cys Phe Tyr Pro Asn Thr Ile 85 90 95

Asp Val Pro Pro Glu Glu Glu Cys Glu Phe

<210> 716

<211> 105

<212> PRT

<213> Homo sapiens

<40	0> 7	16													
Glu 1	Gly	Arg	Glu	Ala 5	Gly	Ser	Gly	Leu	Ser 10	Val	Asp	Ser	Arg	Asp 15	Lys
Gly	His	Glu	Gly 20	Arg	Gly	Leu	Gly	Pro 25	Phe	Arg	Ile	Pro	Gln 30	Asp	Ser
Gln	Val	Gln 35	Leu	Cys	Gln	Lys	Gly 40	Thr	Phe	His	Val	Met 45	Gln	Leu	Arg
Gly	Leu 50	Ser	Leu	Asn	Pro	Arg 55	Leu	Leu	Leu	Thr	Leu 60	Gly	Ser	Phe	Asn
Gln 65	Val	Gly	Gln	Pro	Leu 70	Leu	Gln	Arg	Gly	<b>Val</b> 75	Gly	Trp	Leu	Ser	Ser 80
Leu	Ser	His	Ala	Ala 85	Cys	Glu	Asp	Arg	Gly 90	Gly	Gly	Val	Gly	Ser 95	Gly
Lys	Ser	Pro	Glu	Asn	Arg	Arg	Gly	Ile							

105

<210> 717 <211> 431 <212> PRT <213> Homo sapiens

100

<400> 717

Pro Gly Leu Pro Ser Pro Pro Met Val Leu Tyr Ile Lys Tyr Pro Gly
20 25 30

Trp Arg Ser His Met Leu Leu Thr Glu Gly Gly Asn Tyr His Ser Ser 35 40 45

Leu Gly Thr Arg Cys Glu Leu Ser Cys Asp Arg Gly Phe Arg Leu Ile 50 55 60

Gly Arg Arg Ser Val Gln Cys Leu Pro Ser Arg Arg Trp Ser Gly Thr
65 70 75 80

Ala Tyr Cys Arg Gln Met Arg Cys His Ala Leu Pro Phe Ile Thr Ser 85 90 95.

Gly Thr Tyr Thr Cys Thr Asn Gly Val Leu Leu Asp Ser Arg Cys Asp 100 105 110

Tyr	Ser	Cys 115	Ser	Ser	Gly	Tyr	His 120	Leu	Glu	Gly	Asp	Arg 125	Ser	Arg	Ile
Cys	Met 130	Glu	Asp	Gly	Arg	Trp 135	Ser	Gly	Gly	Glu	Pro 140	Val	Cys	Val	Asp
Ile 145	Asp	Pro	Pro	Lys	Ile 150	Arg	Cys	Pro	His	Ser 155	Arg	Glu	Lys	Met	Ala 160
Glu	Pro	Glu	Lys	Leu 165	Thr	Ala	Arg	Val	Tyr 170	Trp	Asp	Pro	Pro	Leu 175	Val
Lys	Asp	Ser	Ala 180	Asp	Gly	Thr	Ile	Thr 185	Arg	Val	Thr	Leu	Arg 190	Gly	Pro
Glu	.Pro	Gly 195	Ser	His	Phe	Pro	Glu 200	Gly	Glu	His	Val	11e 205	Arg	Tyr	Thr
Ala	Туг 210	Asp	Arg	Ala	Tyr	Asn 215	Arg	Ala	Ser	Cys	Lys 220	Phe	Ile	Val	Lys
Val 225	Gln	Val	Arg	Arg	Cys 230	Pro	Thr	Leu	Lys	Pro 235	Pro	Gln	His	Gly	Tyr 240
Leu	Thr	Cys	Thr	Ser 245	Ala	Gly	Asp	Asn	Tyr 250	Gly	Ala	Thr	Cys	Glu 255	Tyr
His	Cys	Asp	Gly 260	Gly	Tyr	Asp	Arg	Gln 265	Gly	Thr	Pro	Ser	Arg 270	Val	Cys
Gln	Ser	Ser 275	Arg	Gln	Trp	Ser	Gly 280	Ser	Pro	Pro	Ile	Cys 285	Ala	Pro	Met
Lys	Ile 290	Asn	Val	Asn	Val	Asn 295	Ser	Ala	Ala	Gly	Leu 300	Leu	Asp	Gln	Phe
Tyr 305	Glu	Lys	Gln	Arg	Leu 310	Leu	Ile	Ile	Ser	Ala 315	Pro	Asp	Pro	Ser	Asn 320
Arg	Tyr	Tyr	Lys	Met 325	Gln	Ile	Ser	Met	Leu 330	Gln	Gln	Ser	Thr	Cys 335	Gly
Leu	Asp	Leu	Arg 340	His	Val	Thr	Ile	Ile 345	Glu	Leu	Val	Gly	Gln 350	Pro	Pro
Gln	Glu	Val 355	Gly	Arg	Ile	Arg	Glu 360	Gln	Gln	Leu	Ser	Ala 365	Asn	Ile	Ile
Glu	Glu 370	Leu	Arg	Gln	Phe	Gln 375	Arg	Leu	Thr	Arg	Ser 380	Tyr	Phe	Asn	Met

Val Leu Ile Asp Lys Gln Gly Ile Asp Arg Asp Arg Tyr Met Glu Pro 395 Val Thr Pro Glu Glu Ile Phe Thr Phe Ile Asp Asp Tyr Leu Leu Ser 405 410 Asn Gln Glu Leu Thr Gln Arg Arg Glu Gln Arg Asp Ile Cys Glu 425 <210> 718 <211> 417 <212> PRT <213> Homo sapiens <400> 718 Gln Gly Leu Pro Asp Gly Val Trp Ala His Gly Thr Cys Pro Gly His 10 Arg Leu Val Ser Ser Gln Arg Arg Ile Ile Ala Ser Gly Ser Glu Asp 25 Cys Thr Val Met Val Trp Gln Ile Pro Glu Asn Gly Leu Thr Ser Pro 40 Leu Thr Glu Pro Val Val Leu Glu Gly His Thr Lys Arg Val Gly 55 Ile Ile Ala Trp His Pro Thr Ala Arg Asn Val Leu Leu Ser Ala Gly Cys Asp Asn Val Val Leu Ile Trp Asn Val Gly Thr Ala Glu Glu Leu 85 Tyr Arg Leu Asp Ser Leu His Pro Asp Leu Ile Tyr Asn Val Ser Trp Asn His Asn Gly Ser Leu Phe Cys Ser Ala Cys Lys Asp Lys Ser Val 120 Arg Ile Ile Asp Pro Arg Arg Gly Thr Leu Val Ala Glu Arg Glu Lys 135 Ala His Glu Gly Ala Arg Pro Met Arg Ala Ile Phe Leu Ala Asp Gly 155 Lys Val Phe Thr Thr Gly Phe Ser Arg Met Ser Glu Arg Gln Leu Ala 170

692

Leu	Trp	Asp	Pro 180	Glu	Asn	Leu	Glu	Glu 185	Pro	Met	Ala	Leu	Gln 190	Glu	Let
Asp	Ser	Ser 195	Asn	Gly	Ala	Leu	Leu 200	Pro	Phe	Туr	Asp	Pro 205	Asp	Thr	Se
Val	Val 210	Tyr	Val	Cys	Gly	Lys 215	Gly	Asp	Ser	Ser	Ile 220	Arg	Tyr	Phe	Glu
Ile 225	Thr	Glu	Glu	Pro	Pro 230	Tyr	Ile	His	Phe	Leu 235	Asn	Thr	Phe	Thr	Ser 240
Lys	Glu	Pro	Gln	Arg 245	Gly	Met	Gly	Ser	Met 250	Pro	Lys	Arg	Gly	Leu 255	Glu
Val	Ser	Lys	Cys 260	Glu	Ile	Ala	Arg	Phe 265	Tyr	Lys	Leu	His	Glu 270	Arg	Lys
Cys	Glu	Pro 275	Ile	Val	Met	Thr	Val 280	Pro	Arg	Lys	Ser	Asp 285	Leu	Phe	Glr
Asp	Asp 290	Leu	Tyr	Pro	Asp	Thr 295	Ala	Gly	Pro	Glu	Ala 300	Ala	Leu	Glu	Ala
Glu 305	Glu	Trp	Val	Ser	Gly 310	Arg	Asp	Ala	Asp	Pro 315	Ile	Leu	Ile	Ser	Let 320
Arg	Glu	Ala	Tyr	Val 325	Pro	Ser	Lys	Gln	Arg 330	Asp	Leu	Lys	Ile	Ser 335	Arç
Arg	Asn	Val	Leu 340	Ser	Asp	Ser	Arg	Pro 345	Ala	Met	Ala	Pro	Gly 350	Ser	Ser
His	Leu	Gly 355	Ala	Pro	Ala	Ser	Thr 360	Thr	Thr	Ala	Ala	Asp 365	Ala	Thr	Pro
Ser	Gly 370	Ser	Leu	Ala	Arg	Ala 375	Gly	Glu	Ala	Gly	Lys 380	Leu	Glu	Glu	Va]
Met 385	Gln	Glu	Leu	Arg	Ala 390	Leu	Arg	Ala	Leu	Val 395	Lys	Glu	Gln	Gly	Asp 400
Arg	Ile	Cys	Arg	Leu 405	Glu	Glu	Gln	Leu	Gly 410	Arg	Met	Glu	Asn	Gly 415	Asp

<210> 719

Ala

<23	11> 3	290													
<21	12> 1	PRT													
<21	l3> 1	Homo	sapi	iens											
<22															
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	2>														
<22	!3> ;	(aa e	equa l	s ar	y of	the	nat	ural	ly c	ccur	ring	L-a	mino	aci	.ds
- 2 2															
<22	:0> !1>													-	
	2> (														
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-22		iaa c	quai	.s ai	ıy or	the	nat	uraı	ry c	ccur	ring	L-a	mino	acı	ds
<22	0>														
<22	1> \$	ITE													
		131)													
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			•						· .		-				
	0> 7														
Glu	Leu	Ser	Ala	Ser	Ala	Xaa	Asp	Asp	Gly	Asn	Phe	Ser	Leu	Leu	Ile
1				5					10					15	
	_														
Arg	Ala	Val			Thr	Asp	Ala	Gly	Leu	Tyr	Thr	Cys	Asn	Leu	His
			20					25					30		
	•••	<b></b>	•		_	_			٠			•			
HIS	HIS			His	Leu	Tyr		Ser	Leu	Ala	Val		Leu	Glu	Val
		35					40					45			
rh r	Δen	Glv	Dro	Pro	۸۱۵	Dwa	D	D	mh	<b>6</b> 1	<b></b>		_		_
	75 P		FIU	PLO	WIG	55		Pro	Thr	GIY		Ala	Arg	Arg	Arg
	- 50					,,,	•				60				
Cvs	Tro	Ara	Trp	Ara	Ala	Ala	Pro	Ala	Yaa	T.011	Thr-	Cvc	Val	Nan	B
65		5		9	70			n1a	Add	75	1111	Cys	vai	ASI	_
					. •					, ,					80
31y	His	Val	Trp	Thr	Asp	Arq	His	Val	Glu	Glu	Ala	Gln	Gln	Va 1	V a l
			-	85	•	•			90				<b></b>	95	•41
lis	Trp	Asp	Arg	Gln	Pro	Pro	Gly	Val	Pro	His	Asp	Ara	Ala	Asp	Ara
			100				_	105			•	_	110		9
eu	Leu	Asp	Leu	Tyr	Ala	Ser	Ala	Ser	Ala	Ala	Leu	Arg	Ala	Pro	Phe
		115					120					125			
er	Ala	Xaa	Arg	Val	Ala	Val	Gly	Ala	Asp	Ala	Phe	Lys	Arg	Gly	Asp
	130					135					140				_
	_														
	Ser	Leu	Arg	Ile		Pro	Leu	Glu	Val	Ala	Asp	Glu	Gly	Thr	Tyr
45					150					155					160
	C	•••					_	_	_						
C: T	LVS	HIS	1.011	HIS	HIC	HIC	TUY	ጥተከ	A ~~~	Ala	Λ1 -	The	mb-	0	_

175 165 170 Met Ser Ser Pro Arg Ala Glu Pro Thr Ser Ser Ser Trp Ala 185 Thr Cys Trp Pro Arg Cys Cys Ser Ser Ser Cys Tyr Trp Ser Leu Ser Ser Trp Pro Pro Ala Gly Arg Gly Gly Tyr Glu Tyr Ser Asp Gln Lys Ser Gly Lys Ser Lys Gly Lys Asp Val Asn Leu Ala Glu Phe Ala Val Ala Ala Gly Asp Gln Met Leu Tyr Arg Ser Glu Asp Ile Gln Leu Asp 250 Tyr Lys Asn Asn Ile Leu Lys Glu Arg Ala Glu Leu Ala His Ser Pro Leu Pro Ala Lys Tyr Ile Asp Leu Asp Lys Gly Phe Arg Lys Glu Asn 280 Cys Lys 290 <210> 720 <211> 459 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (50) <223> Xaa equals any of the naturally occurring L-amino acids Asp Ala His Pro Lys Pro Cys Cys Glu Thr Ser Ala Ala Cys Arg Leu Val Glu Arg Ile Leu Thr Ser Trp Glu Glu Asn Asp Arg Val Gln 25 Cys Ala Gly Gly Pro Arg Lys Gly Tyr Met Gly His Leu Thr Arg Val 40

Ala Xaa Ala Leu Val Gln Asn Thr Glu Lys Gly Pro Asn Ala Glu Gln

60

Leu 65		Gln	Leu	Leu	Lys 70		Leu	Pro	Ser	75		Glm	Glu	Gln	Trp 80
Glu	Ala	Phe	Val	Ser 85		Pro	Leu	Ala	Glu 90		Asn	Lys	Lys	Asn 95	
Val	Asp	Leu	Val 100		Thr	His	His	Leu 105		Ser	Ser	Ser	Asp 110	-	Glu
Asp	Asp	Arg 115	Leu	Lys	Glu	Phe	120		Pro	Glu	Glu	Ala 125		Leu	Gln
Gln	Ala 130	Phe	. Met	Asp	Phe	Gln 135	Met	Gln	Arg	Met	Thr 140	Ser	Ala	Phe	Ile
Asp 145	His	Phe	Gly	Phe	Asn 150	Asp	Glu	Glu	Phe	Gly 155	Glu	Gln	Glu	Glu	Ser 160
Val	Asn	Ala	Pro	Phe 165	Asp	Lys	Thr	Ala	Asn 170	Ile	Thr	Phe	Ser	Leu 175	Asn
Ala	Asp	Asp	Glu 180	Asn	Pro	Asn	Ala	Asn 185	Leu	Leu	Glu	Ile	Суs 190	Tyr	Lys
Asp	Arg	Ile 195	Gln	Gln	Phe	Asp	Asp 200	Asp	Glu	Glu	Glu	Glu 205	Asp	Glu	Glu
	210					215	Ser				220				
225					230		Ala			235					240
				245			Ser		250					255	
			260				Gly	265					270		_
		275					Ser 280				,	285			
	290					295	Pro	•			300				
Pro 305	Arg	Val	Ser	Gly	Glu 310	Glu	Glu	Leu	His	Thr 315	Gly	Pro	Pro	Ala	Pro 320
Gln	Gly	Pro		Ser 325	Val	Pro	Gln	Gly	Leu 330	Pro	Thr	Gln	Ser	Leu 335	Ala

<220>

696

Ser Pro Pro Ala Arg Asp Ala Leu Gln Leu Arg Ser Gln Asp Pro Thr 340 345 Pro Pro Ser Ala Pro Gln Glu Ala Thr Glu Gly Ser Lys Val Thr Glu 360 Pro Ser Ala Pro Cys Gln Ala Leu Val Ser Ile Gly Asp Leu Gln Ala 375 Thr Phe His Gly Ile Arg Ser Ala Pro Ser Ser Ser Asp Ser Ala Thr 390 Arg Asp Pro Ser Thr Ser Val Pro Ala Ser Gly Ala His Gln Pro Pro 405 410 Gln Thr Thr Glu Gly Glu Lys Ser Pro Glu Pro Leu Gly Leu Pro Gln Ser Gln Ser Ala Gln Ala Leu Thr Pro Pro Pro Ile Pro Asn Gly Ser 440 Ala Pro Glu Gly Pro Ala Ser Pro Gly Ser Gln 455 <210> 721 <211> 523 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (12) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (115) <223> Xaa equals any of the naturally occurring L-amino acids

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Leu 1	Gln	Arg	Leu	Lys 5		Ile	Lys	Pro	Leu 10		Xaa	Phe	Glu	Ser 15	
Glu	Glu	Cys	Tyr 20		Ala	Lys	Ile	Leu 25	Val	Ala	Glu	Gly	Thr 30	Arg	Asį
Val	Pro	Ile 35	Gly	Ala	Ile	Ile	Cys 40	Ile	Thr	Val	Gly	Lys 45	Pro	Glu	Asp
Ile	Glu 50	Ala	Phe	Lys	Asn	Tyr 55	Thr	Leu	Asp	Ser	Ser 60	Ala	Ala	Pro	Thi
Pro 65	Gln	Ala	Ala	Pro	Ala 70	Pro	Thr	Pro	Ala	Ala 75	Thr	Ala	Ser	Pro	Pro 80
Thr	Pro	Ser	Ala	Gln 85	Ala	Pro	Gly	Ser	Ser 90	Туг	Pro	Pro	His	Met 95	Glr
Val	Leu	Leu	Pro 100	Ala	Leu	Ser	Pro	Thr 105	Йet	Thr	Met	Gly	Thr 110	Val	Glr
Arg	Trp	Xaa 115	Lys	Lys	Val	Gly	Glu 120	Lys	Leu	Ser		Gly 125	Asp	Leu	Leu
	Glu 130	Ile	Glu	Thr	Asp	Lys 135	Ala	Thr	Ile	Gly	Phe 140	Glu	Val	Gln	Glu
Glu 145	Gly	Tyr <sub>.</sub>	Leu	Ala	Lys 150	Ile	Leu	Val	Pro	Glu 155	Gly	Thr	Arg	Asp	Val 160
Pro	Leu	Gly	Thr	Pro 165	Leu	Cys	Ile	Ile	Val 170	Glu	Lys	Glu	Ala	Asp 175	Ile
Ser	Ala	Phe	Ala 180	Asp.	Tyr	Arg	Pro	Thr 185	Glu	Val	Thr	Asp	Leu 190	Lys	Pro
Gln	Xaa	Pro 195	Pro	Pro	Thr	Pro	Pro 200	Pro	Val	Ala	Ala	Val 205	Pro	Pro	Thr
Pro	Gln 210	Pro	Leu	Ala	Pro	Thr 215	'Pro	Ser	Ala	Pro	Cys 220	Pro	Ala	Thr	Pro
Ala 225	Gly	Pro	Lys	Gly	Arg 230	Val	Phe	Val	Ser	Pro 235	Leu	Ala	Lys	Lys	Leu 240
Ala	Val	Glu	Lys	Gly 245	Ile	Asp	Leu	Ţhr	Gln 250	Val	Lys	Gly	Thr	Gly 255	Pro
Asp	Gly	Arg	Ile 260	Thr	Lys	Lys	Asp	Ile 265	Asp	Ser	Phe	Val	Pro 270	Ser	Lys

Val Ala Pro Ala Pro Ala Ala Val Val Pro Pro Thr Gly Pro Gly Met 280 Ala Pro Val Pro Thr Gly Val Phe Thr Asp Ile Pro Ile Ser Asn Ile 295 Arg Arg Val Ile Ala Gln Arg Leu Met Gln Ser Lys Gln Thr Ile Pro 315 His Tyr Tyr Leu Ser Ile Xaa Val Asn Met Gly Glu Val Leu Leu Val 330 Arg Lys Glu Leu Asn Lys Ile Leu Glu Gly Arg Ser Lys Ile Ser Val 345 Asn Asp Phe Ile Ile Lys Ala Ser Ala Leu Ala Cys Leu Lys Val Pro 360 Glu Ala Asn Ser Ser Trp Met Asp Thr Val Ile Arg Gln Asn His Val 375 Val Asp Val Ser Val Ala Val Ser Thr Pro Ala Gly Leu Ile Thr Pro 390 395 Ile Val Phe Asn Ala His Ile Lys Gly Val Glu Thr Ile Ala Asn Asp 410 Val Val Ser Leu Ala Thr Lys Ala Arg Glu Gly Lys Leu Gln Pro His 425 Glu Phe Gln Gly Gly Thr Phe Thr Ile Ser Asn Leu Gly Met Phe Gly Ile Lys Asn Phe Ser Ala Ile Ile Asn Pro Pro Gln Ala Cys Ile Leu 455 Ala Ile Gly Ala Ser Glu Asp Lys Leu Val Pro Ala Asp Asn Glu Lys 475 Gly Phe Asp Val Ala Ser Met Met Ser Val Thr Leu Ser Cys Asp His 490 Arg Val Val Asp Gly Ala Val Gly Ala Gln Trp Leu Ala Glu Phe Arg 505 Lys Tyr Leu Glu Lys Pro Ile Thr Met Leu Leu

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<212> PRT
<213> Homo sapiens
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Ser Ser Arg Ser Arg Ala Ala Asp Glu Xaa Ala Leu Cys Leu Gln Cys
Asp Met Asn Asp Cys Tyr Ser Arg Leu Arg Arg Leu Val Pro Thr Ile
                                 25
Pro Pro Asn Lys Lys Val Ser Lys Val Glu Ile Leu Gln His Val Ile
                            40 .
Asp Tyr Ile Leu Asp Leu Gln Leu Ala Leu Glu Thr His Pro Ala Leu
                        55
Leu Arg Gln Pro Pro Pro Pro Ala Pro Pro His His Pro Ala Gly Thr
            . 70
Cys Pro Ala Ala Pro Pro Arg Thr Pro Leu Thr Ala Leu Asn Thr Asp
Pro Ala Gly Ala Val Asn Lys Gln Gly Asp Ser Ile Leu Cys Arg
            100
                               105
```

<210> 723 <211> 190 <212> PRT <213> Homo sapiens

Ser Gly Gly Gly Gly Arg Met Ile Lys Leu Phe Ser Leu Lys Gln

Gln Lys Lys Glu Glu Glu Ser Ala Gly Gly Thr Lys Gly Ser Ser Lys
20 25 30

Lys Ala Ser Ala Ala Gln Leu Arg Ile Gln Lys Asp Ile Asn Glu Leu 35 40 45

Asn Leu Pro Lys Thr Cys Asp Ile Ser Phe Ser Asp Pro Asp Asp Leu
50 55 60

700

Leu Asn Phe Lys Leu Val Ile Cys Pro Asp Glu Gly Phe Tyr Lys Ser 70 Gly Lys Phe Val Phe Ser Phe Lys Val Gly Gln Gly Tyr Pro His Asp Pro Pro Lys Val Lys Cys Glu Thr Met Val Tyr His Pro Asn Ile Asp 105 Leu Glu Gly Asn Val Cys Leu Asn Ile Leu Arg Glu Asp Trp Lys Pro 115 120 125 Val Leu Thr Ile Asn Ser Ile Ile Tyr Gly Leu Gln Tyr Leu Phe Leu 135 Glu Pro Asn Pro Glu Asp Pro Leu Asn Lys Glu Ala Ala Glu Val Leu 155 145 150 Gln Asn Asn Arg Arg Leu Phe Glu Gln Asn Val Gln Arg Ser Met Arg 165 170 Gly Gly Tyr Ile Gly Ser Thr Tyr Phe Glu Arg Cys Leu Lys 180 185 <210> 724

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<213> Homo sapiens
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<221> SITE
<222> (440)
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<220>
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<222> (443)
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<223> Xaa equals any of the naturally occurring L-amino acids

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Arg 1		Arg	Arg	Ala 5		Arg	Ala	Thr	Pro 10		Glu	Val	Leu	Glu 15	Thr
Pro	Gly	Ala	Ala 20		Val	Gln	Thr	Leu 25	Pro	Ser	Val	Thr	Met 30	Lys	Leu
тгр	Val	Ser 35		Leu	Leu	Met	Ala 40	Trp	Phe	Gly	Val	Leu 45	Ser	Cys	Val
Gln	Ala 50	Glu	Phe	Phe	Thr	Ser 55	Ile	Gly	His	Met	Thr 60	Asp	Leu	Ile	Tyr
Ala 65	Glu	Lys	Glu	Leu	Val 70	Gln	Ser	Leu	Lys	Glu 75	Tyr	Ile	Leu	Val	Glu 80
Glu	Ala	Lys	Leu	Ser 85	Lys	Ile	Lys	Ser	Trp "90	Ala	Asn	Lys	Met	Glu 95	Ala
Leu	Thr	Ser	Lys 100	Ser	Ala	Ala	Asp	Ala 105	Glu	Gly	Tyr	Leu	Ala 110	His	Pro
Val	Asn	Ala 115	Tyr	Lys	Leu	Val	Lys 120	Arg	Leu	Asn	Thr	Asp 125		Pro	Ala
Leu	Glu 130	Asp	Leu	Val	Leu	Gln 135	Asp	Ser	Ala	Ala	Gly 140	Phe	Ile	Ala	Asn
Leu 145	Ser	Val	Gln	Arg	Gln 150	Phe	Phe	Pro	Thr	Asp 155	Glu	Asp	Glu	Ile	Gly 160
Ala	Ala	Lys	Ala	Leu 165	Met	Arg	Leu	Gln	Asp 170	Thr	Tyr	Arg	Leu	Asp 175	Pro
Gly	Thr	Ile	Ser 180	Arg	Gly	Glu	Leu	Pro 185	Gly	Thr	Lys	Tyr	Gln 190	Ala	Met
Leu	Ser	Val 195	Asp	Asp	Cys	Phe	Gly 200	Met	Gly	Arg	Ser	Ala 205	Tyr	Asn	Glu
Gly	Asp 210	Tyr	Tyr	His	Thr	Val 215	Leu	Trp	Met	Glu	Gln 220	Val	Leu	Lys	Gln
Leu 225	Asp	Ala	Gly	Glu	Glu 230	Ala	Thr	Thr	Thr	Lys 235	Ser	Gln	Val	Leu	Asp 240
Tyr	Leu	Ser	Tyr	Ala 245	Val	Xaa	Gln	Leu	Gly 250	Asp	Leu	His	Arg	Ala 255	Leu
Glu	Leu	Thr	Arg	Ara	Leu	Leu	Ser	Leu	Asp	Pro	Ser	Hie	GI.	A	A 1 -

	260		265	270
Gly Gly A	sn Leu Arg T 75	r Phe Glu 280	Gln Leu Leu G	lu Glu Glu Arg Glu 285
Lys Thr Le 290	eu Thr Asn G	n Thr Glu 295	Ala Glu Leu A	la Thr Pro Glu Gly
Ile Tyr Gl 305	lu Arg Pro Va 31	l Asp Tyr 0	Leu Pro Glu A	rg Asp Val Tyr Glu 320
	323		330	co Arg Arg Gln Lys 335
Arg Leu Ph	e Cys Arg Ty 340	r His His	Gly Asn Arg Al 345	a Pro Gln Leu Leu 350
Ile Ala Pr 35	o Phe Lys Gl 5	Glu Asp o	Glu Trp Asp Se	r Pro His Ile Val 365
Arg Tyr Ty: 370	r Asp Val Me	Ser Asp (	Glu Glu Ile Gl 38	u Arg Ile Lys Glu O
Ile Ala Lys 385	s Pro Lys Leu 390	a Ala Arg <i>I</i>	Ala Thr Val Ar 395	g Asp Pro Lys Thr 400
Gly Val Leu	Thr Val Ala 405	Ser Tyr A	arg Val Ser Ly: 410	s Ser Ser Trp Leu 415
Xaa Glu Asp	Asp Asp Pro 420	Val Val A	la Arg Val Ası 25	n Arg Arg Met Gln 430
His Ile Thr 435	Gly Leu Thr	Val Xaa T 440	hr Ala Xaa Leu	1 Leu Gln Val Ala 445
Asn Tyr Gly 450	Val Gly Gly	Gln Tyr G 455	lu Pro His Phe 460	Asp Phe Ser Arg
Asn Asp Glu 465	Arg Asp Thr 470	Phe Lys H	is Leu Gly Thr 475	Gly Asn Arg Val 480
Ala Thr Phe	Leu Asn Tyr 485	Met Ser As	sp Val Glu Ala 490	Gly Gly Ala Thr 495
Val Phe Pro	Asp Leu Gly 500	Ala Ala Il 50	e Trp Pro Lys	Lys Gly Thr Ala
Val Phe Trp 515	Tyr Asn Leu	Leu Arg Se 520	r Gly Arg Arg	

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<213> Homo sapiens
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Leu Lys Met Thr Ser Leu Phe Ala Gln Glu Ile Arg Leu Ser Lys Arg
                                     10.
His Glu Glu Ile Val Ser Gln Arg Leu Met Leu Leu Gln Gln Met Glu
Asn Lys Leu Gly Asp Gln His Thr Glu Lys Ala Ser Gln Leu Gln Thr
                             40
Val Glu Thr Ala Phe Lys Arg Asn Leu Ser Leu Leu Lys Asp Ile Glu
Ala Ala Glu Lys Ser Leu Gln Thr Arg Ile His Pro Leu Pro Arg Pro
Glu Val Val Ser Leu Glu Thr Arg Tyr Trp Ala Ser
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (688)

<220>

<223> Xaa equals any of the naturally occurring L-amino acids

< 2	20>															
<2	21>	SIT	E													
<2	22>	(69	0 i													
				qua l	ls a	ny o	f th	e nai	tura:	lly (	occu	rrin	g L-	amin	o ac	ids
<4	00>	726														
٧a	l Se	r A	ra	Ser	Pro	o Arc	va '	l Pro	ı T.e.	ı Dr	^ D~	a 2		- DL	- 0-	_
	1		٠,			5	,		, nc			J AL	3 26	L Pne		
	-					,				10	,				1	5
Me	t Al	a G	v	Asn	S & S & S	c ጥክነ	- 11:	a Thr				. <b>.</b> .				
			- 1	20				2 1111			JAI	i rei	1 GI			a Pro
				20	!				25	•				30	)	
Δqı	n Ar	~ A1	a	212	Dre	uic										
	P	9	35	nia	PIC	, 115	, TT6	Leu		) Ala	a GT	Ala			Ala	a Ala
		-	, ,					40	,				45	5		
Thi	r 11:	. D.	٠.	C1**	T ou			- 01-		٠.	_	_	_			
• • • • •	5	, ,,	. 0	GIY	пег	GLY		Gly	Pro	GIU	Pro			Arg	Ala	1 Leu
	٠,	,					55	)				60	)			
n 1 -				T												
65	. 01)	, 61	·y	Leu	Arg	GIY	Pro	Gln	GIY	Asn			Leu	Gln	Glu	ı Arg
0.	,					70					75	•				80
τ		- >-	_	<b>0</b>		-1	_									
гуs	, ML	AL	9	Cys	Pro	GIA	Leu	Ala	Gly			Glu	Ala	Ile	Ser	. Cys
					85					90					95	•
<b>C3</b> -	. m.			_												
Gly	Thi	GI	y	Leu	Gly	Leu	Pro	Gly	Leu	Ala	Leu	Xaa	Arg	Glu	Leu	Ile
				100					105					110		
_	_															
Ser	Trp	GI	y	Ala	Pro	Gly	Ser	Ala	Asp	Ser	Xaa	Arg	Leu	Leu	His	Trp
		11	5					120					125			
Gly	Ser	Hi	S	Pro	Thr	Ala	Phe	Val	Val	Ser	Tyr	Ala	Ala	Ala	Leu	Pro
	130						135					140				
Ala	Ala	Al	<b>a</b> :	Leu	Trp	His	Lys	Leu	Gly	Ser	Leu	Trp	Val	Pro	Gly	Gly
145						150					155				_	160
Gln	Gly	Gl	7 :	Ser	Gly	Asn	Pro	Val	Arg	Arg	Leu	Leu	Gly	Cys	Leu	Glv
					165					170			•	•	175	1
Ser	Glu	Thi	2 1	Arg	Arg	Leu	Ser	Leu	Phe	Leu	Val	Leu	Val	Va 1	Len	Ser
			1	180					185					190		
Ser	Leu	Gly	, (	Glu	Met	Ala	Ile	Pro	Phe	Phe	Thr	Glv	Ara	T.e.n	Thr	λεπ
		195	,					200				1	205	Deu.	1111	nap
Trp	Ile	Leu		3ln	Asp	Glv	Ser	Ala	Asp	ጥስ <del>-</del>	Pho	ጥኮ፦	Ar-	λ	T	mk
•	210					2	215			-111	T. HE	220	ur d	MSII	டeu	TUL
												220				
Leu	Met	Ser	I	le	Leu	Thr	Ile	Ala	Ser	Al=	t/a1	T.e.s	C1	Dh -	17-3	<b>a</b> 1
225		_	_			230			-CL	.,,,		neu	oru	rne	val	
											235					240

	Asį	Gl;	y Il	е ту	24:	n Ası 5	1 Thi	r Met	Gly	y His 250		l Hi:	s Sei	r His	255	
	Gly	Gl:	u Va	26)	e Gly	y Ala	a Val	l Lei	265		n Glu	Th:	r Glu	270		e Gli
	Glr	ASI	1 Gli 27		r Gly	y Asr	ıle	≥ Met 280		Arq	y Val	LThi	Glu 285		Thr	Sei
	Thr	290	ı Sei	c Asp	Ser	. Leu	Ser 295		Asr	ı Let	Ser	300		e Leu	Trp	туі
	305					310	ı				315	•				320
					325					330	)				335	1
				340	•	Lys			345					350		
			355			Ser		360					365			
		370				Ser	375					380				Ī
	385					Gln 390			٠		395					400
			1		405	Asn				410					415	
				420		Leu			425					430		
			435		•	Asn		440					445			
		450				Glu	455					460				
	465					Ser 470					475					480
					485	Ser				490					495	Ī
•			GIII	500	GIII	Asp	val	ser	Phe 505	ALA	Tyr	Pro	Asn	Arg 510	Pro	Asp

706

Val Leu Val Leu Gln Gly Leu Thr Phe Thr Leu Arg Pro Gly Glu Val 520 Thr Ala Leu Val Gly Pro Asn Gly Ser Gly Lys Ser Thr Val Ala Ala 535 Leu Leu Gln Asn Leu Tyr Gln Pro Thr Gly Gly Gln Leu Leu Asp Gly Lys Pro Leu Pro Gln Tyr Glu His Arg Tyr Leu His Arg Gln Val 570 Ala Ala Val Gly Gln Glu Pro Gln Val Phe Gly Arg Ser Leu Gln Glu 585 Asn Ile Ala Tyr Gly Leu Thr Gln Lys Pro Thr Met Glu Glu Ile Thr 600 Ala Ala Val Lys Ser Gly Ala His Ser Phe Ile Ser Gly Leu Pro Gln Gly Tyr Asp Thr Glu Val Asp Glu Ala Gly Ser Gln Leu Ser Gly 635 Gly Gln Arg Gln Ala Val Ala Leu Ala Arg Ala Leu Ile Arg Lys Pro 650 Cys Val Leu Ile Leu Asp Asp Ala Thr Ser Ala Leu Asp Ala Asn Ser 665 Gln Leu Gln Val Glu Gln Leu Leu Tyr Glu Ser Pro Glu Arg Tyr Xaa 680 Arg Xaa 690 <210> 727 <211> 82 <212> PRT <213> Homo sapiens

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  Thr Asn Pro Ile Val Asn Ser Ala Cys Lys Gly Ser Arg Leu Cys Ala
               20
                                   25
                                                       30
  Pro Tyr Glu Asn Leu Met Pro Asp Asp Leu Arg Xaa Asn Ser Phe Ile
  Leu Lys Pro Pro Phe Thr Leu Gln Ser Val Glu Lys Leu Ser Ser Thr
      50
                           55
                                               60
  Lys Leu Val Pro Gly Ala Lys Asn Xaa Gly Asp Arg Cys Ser Arg Glu
                      70 .
                                           75
  Arg Ser
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		(59) Xaa		als a	any o	of th	ъ па	turs	11.,				·		
			•		, 0	- 0.	.ca	cura	LLY	occu	ILLI	ig L-	·amın	o ac	ıds
	100> er Ai		al Ly	ys Pi	co Ar 5	g Va	l Ar	g Gl		r Xa O	a Va	l Ar	g Th	r Pr	
Se	r Ai	rg Aı	rg G)	Ly Ar 20	g Hi	s Gl	y Al	a Va 2		o Gl	y As	p Tr	p Gl		a Ala
Al	a Gl	ln Al	.a Ar	:g G1	y Ala	a Gl	y Gl:		g Le	u Pr	O Th	r Pr		r Glı	ı Ile
Le	u Se 5	r As	n Al	a Gl	y Le	ı Ar	g Phe 5	e Gl	ı Va	l Va	l Pro		r Lys	5 Phe	≥ Lys
<b>Gl</b> :	ս <b>Ly</b> 5	s Le	u As	p Ly	s Ala 70	a Sei	r Phe	e Ala	a Thi	r Pro		r Gly	у Туі	: Ala	Met 80
Gl	u Th	r Al	a Ly	s Gl 8	n Lys	ala	a Leu	ı Glu	va]		a Ası	n Arg	J Leu	Tyr 95	
Lys	s As	p Le	u Ar	g Ala	a Pro	Asp	Val	Val		e Gly	Ala	Asp	Thr		Val
Thr	. Va	1 Gl <sub>2</sub>	y Gly	y Lei	ı Ile	Leu	Glu 120	Lys	Pro	Val	. Asp	Lys 125		Asp	Ala
Tyr	130	g Met	: Le	ı Ser	Arg	Leu 135	Ser	Gly	Arg	Glu	His 140	Ser	Val	Phe	Thr
Gly 145	Val	Ala	Ile	e Val	His 150	Cys	Ser	Ser	Lys	Asp 155	His	Gln	Leu	Asp	Thr 160
Arg	Val	. Ser	Glu	Phe 165	Tyr	Glu	Glu	Thr	Lys 170	Val	Lys	Phe	Ser	Glu 175	Leu
Ser	Glu	Glu	Leu 180	Leu	Trp	Glu	туг	Val 185	His	Ser	Gly	Glu	Pro 190	Met	Asp
Lys	Ala	Gly 195	Gly	Tyr	Gly	Ile	Gln 200	Ala	Leu	Gly	Gly	Met 205	Leu	Val	Glu
Ser	Val 210	His	Gly	Asp	Phe	Leu 215	Asn	Val	Val	Gly	Phe 220	Pro	Leu	Asn	His
Phe 225	Cys	Lys	Gln	Leu	Val 230	Lys	Leu	туг	Tyr	Pro 235	Pro	Arg	Pro		Asp 240
Leu	Arg	Arg	Ser	Val 245	Lys	His	Asp		Ile 250	Pro	Ala	Ala		Thr	Phe

Glu	ı Ası	p Lei	260	( Asp	o Val	Glu	Gly	7 Gly 265		y Sei	r Glu	ı Pro	270		ı Ar
Asp	Ala	a Gly 275	y Sei	Arg	, Asp	Glu	Lys 280		Glu	ı Ala	a Gly	7 Glu 285		Gly	/ Glr
Ala	Th:	r Ala	a Glu	Ala	Glu	Cys 295		Arg	Thr	Arq	300		Leu	Pro	Pro
Phe 305	Pro	Thr	Arg	, Leu	Leu 310	Glu	Leu	Ile	Glu	Gly 315		e Met	: Leu	Ser	Lys 320
Gly	Leu	1 Leu	Thr	Ala 325	Cys	Lys	Leu	Lys	Val 330		Asp	Leu	ı Leu	Lys 335	_
Glu	Ala	Pro	Gln 340	Lys	Ala	Ala	Asp	Ile 345		Ser	. Lys	, Val	. Asp 350		Ser
Ala	Cys	Gly 355	Met	Glu	Arg	Leu	Leu 360	Asp	Ile	Cys	Ala	Ala 365		Gly	Leu
Leu	Glu 370	Lys	Thr	Glu	Gln	Gly 375	Tyr	Ser	Asn	Thr	Glu 380		Ala	Asn	Val
Tyr 385	Leu	Ala	Ser		Gly -390	Glu	Туr	Ser	Leu	His 395		Phe	Ile	Met	His 400
Asn	Asn	Asp	Leu	Thr 405	Trp	Asn	Leu	Phe	Thr 410	туг	Leu	Glu	Phe	Ala 415	Ile
Arg	Glu	Gly	Thr 420	Asn	Gln	His	His	Arg 425	Ala	Leu	Gly	Lys	Lys 430	Ala	Glu
Asp	Leu	Phe 435	Gln	Asp	Ala	Tyr	Tyr 440	Gln	Ser	Pro	Glu	Thr 445	Arg	Leu	Arg
Phe	Met 450	Arg	Ala	Met	His	Gly 455	Met	Thr	Lys	Leu	Thr 460	Ala	Суз	Gln	Val
Ala 165	Thr	Ala	Phe	Asn	Leu 470	Ser	Arg	Phe	Ser	Ser 475	Ala	Cys	Asp	Xaa	Gly 480
ly	Cys	Thr	Gly	Ala 485	Leu	Ala	Arg	Glu	Leu 490	Ala	Arg	Glu	Tyr	Pro 495	Arg
let	Gln	Val	Thr 500	Val	Phe	Asp	Leu	Pro 505	Asp	Ile	Ile	Glu	Leu 510	Ala	Ala
is	Phe	Gln 515	Pro	Pro	Gly		Gln 520	Gln	Cys	Arg	Ser	Thr 525	Ser	Gln	Gln

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